THE STATE OF TEXAS

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COUNTY OF TRAVIS

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CONTRACT FOR SCIENTIFIC SERVICES Indefinite Deliverable Contract with Work Authorizations

THIS CONTRACT FOR SCIENTIFIC SERVICES is made between the State of Texas, acting through the Texas Department of Transportation, 125 E. 11th St., Austin, Texas 78701-2483 (State), and Ecosystem Planning and Restoration, LLC, having a principal business address at 17442 North Eldridge Parkway, Tomball, TX, 77377 (Technical Expert), for the purpose of contracting for scientific services.

BACKGROUND

As part of its responsibilities under Transportation Code, Chapter 223, Subchapter D, the State provides for procurement of professional services of technical experts, including archeologists, biologists, geologists, historians, or other technical experts to conduct environmental or cultural assessments required by state or federal law for transportation projects. Under 43 TAC §9.80 et seq., the State establishes the Texas Department of Transportation's policies and procedures for contracting for scientific services. The State requested competitive sealed proposals from technical experts. The State has selected the Technical Expert and desires to contract for scientific services, described in more detail as follows: producing environmental documentation to include categorical exclusions, environmental assessments, quality assurance/quality control reviews and performing other environmental services and support services for transportation activities identified under 23 CFR 771, 43 TAC 2.40-2.50 and other statutes and regulations related to compliance with the federal and state environmental standards.

The State and the Technical Expert agree as follows.

AGREEMENT

SECTION 1. SCOPE OF SERVICES. The State and the Technical Expert will furnish items and perform services as identified in Attachment B (Services To Be Provided by the State and the Technical Expert).

SECTION 2. CONTRACT PERIOD.

- **A. Contract Period.** The period after this contract becomes effective and before it is terminated is the Contract Period. This contract becomes effective when executed by both parties and terminates four years after it becomes effective, unless the Contract Period is:
- (1) modified by written supplemental agreement before the date of termination under Attachment A (General Provisions), Article 4 (Supplemental Agreements); or
- (2) otherwise terminated in accordance with Attachment A (General Provisions), Article 26 (Termination and Remedies).
- **B. Maximum Contract Period.** The maximum Contract Period is the time needed to complete all work authorizations issued for projects initiated in the first two years of this contract, provided that no new projects are initiated after the first two years.
- **C. Unauthorized Work.** The State will make no payment for any work performed or cost incurred before or after the Contract Period.

D. Excluded Work. Services subject to procurement under Government Code, Chapter 2254, Subchapter A, the Professional Services Procurement Act, and Transportation Code, §223.041, shall not be performed under this contract.

SECTION 3. COMPENSATION.

- A. Maximum Amount Payable. The maximum amount payable under this contract is shown in Attachment E (Schedule of Rates). Payment under this contract beyond the end of the current fiscal biennium is subject to availability or appropriated funds. If funds are not appropriated, this contract shall be terminated immediately with no liability to either party.
- **B.** Basis of Payment. The basis of payment and reimbursement of costs is set forth in Attachment E (Schedule of Rates). Acceptance by the State of deliverables specified in the work authorization is a condition of payment.
- C. Reimbursement of Eligible Costs. To be eligible for reimbursement, the Technical Expert's costs must:
 - (1) be incurred in accordance with the terms of a valid work authorization;
 - (2) be in accordance with Attachment E (Schedule of Rates); and
 - (3) comply with cost principles set forth in 48 CFR Part 31.
- **D. Technical Expert Payment of Subproviders**. If for any reason subproviders, if any, are not paid before the State reimburses the Technical Expert for their services, the Technical Expert shall pay the subproviders all undisputed amounts due for work no more than 10 days after the Technical Expert receives payment for the work unless a different time is specified by law. The State may withhold all payments that have or may become due if the Technical Expert fails to comply with the ten-day payment requirement. The State may also suspend the work under this contract or any work authorization until subproviders are paid. This requirement also applies to all lower-tier subproviders, and this provision must be incorporated into all subcontracts.

SECTION 4. PAYMENT REQUIREMENTS

- A. Invoices. The Technical Expert shall request payment by submitting the original of an itemized invoice in a form acceptable to the State. The invoice shall be supported by documentation required for the basis of payment listed in Attachment E, Final Cost Proposal. The Technical Expert may submit an invoice no more frequently than monthly and no later than ninety days after completing deliverables specified in the contract. For each work authorization, an invoice shall show the contract number, the work authorization number, the total amount earned to the date of submission, the amount due as of the date of the invoice, and whether the invoice is for the completion of all work under the work authorization or for less than all work.
- **B. Withholding Payments**. If payment is withheld, the State shall notify the Technical Expert and specify conditions that would allow the State to release the payment. The State reserves the right to withhold payment:
 - (1) If a dispute over the work or costs is not resolved within thirty (30) days;
 - (2) pending verification that work is satisfactory;
 - (3) if the Technical Expert becomes a delinquent obligor under Family Code, §231.006;
 - (4) if required work product is not received; or
 - (5) if the State Comptroller of Public Accounts will not issue a warrant to the Technical Expert.
- C. Liquidated Damages: In the event the Technical Expert fails to provide the specified deliverables to TxDOT by the specified dates, at the sole discretion of TxDOT, TxDOT may require the vendor to pay liquidated damages not to exceed one-half of one percent of the cost for each deliverable for each day the deliverable is late. Delays in deliverables caused by reasons outside the Technical Expert's control are not subject to liquidated damages.

D. Required Reports.

- (1) As required in Attachment H, the Technical Expert shall submit Progress Assessment Reports to report payments made to Disadvantaged Business Enterprises or Historically Underutilized Businesses. One copy shall be submitted with each invoice.
- (2) Before contract closeout, the Technical Expert shall submit a Final Report on (Exhibit H-4) to the address set forth in Attachment H.
- (3) With each invoice, the Technical Expert shall submit a separate progress report showing, for each work authorization, the percentage of work that was completed during the billing period and the percentage of work completed to date. The Technical Expert shall also submit any written report requested by the State to document the progress of the work.
- **E. Subproviders and Suppliers List**. The Technical Expert must provide the State a list, (Exhibit H-5/DBE or Exhibit H-6/HUB), of all subproviders and suppliers that submitted quotes or proposals for subcontracts. This list shall include subproviders' and suppliers' names, addresses, and telephone numbers.
- **F. Debt to the State.** If the State Comptroller of Public Accounts is prohibited from issuing a warrant or initiating an electronic funds transfer to the Technical Expert because of a debt owed to the State, the State shall apply all payment due the Technical Expert to the debt or delinquent tax until the debt or delinquent tax is paid in full.
- **SECTION 5. WORK AUTHORIZATIONS.** To authorize all work under this contract, the State will issue work authorizations using form D-1 in Attachment D (Work Authorizations). The Technical Expert must sign and return a work authorization within seven working days after receipt. The Technical Expert's failure to accept a work authorization in a timely manner is grounds for termination of this contract. The State is not responsible for actions by the Technical Expert or costs incurred by the Technical Expert except to the extent that the actions or costs are directly associated with a valid work authorization. Terms and conditions governing the use of work authorizations are set forth in Attachment A (General Provisions), Article 1 (Work Authorizations).
- **SECTION 6. SIGNATORY WARRANTY**. The undersigned signatory for the Technical Expert warrants that the signatory is an officer of the organization for which this contract is executed and has the authority to execute this contract on behalf of the Technical Expert. This warranty is made to induce the State to enter into this contract.

SECTION 7. NOTICES. All notices to either party by the other party will be delivered personally or sent by U.S. Mail, postage prepaid, to the following respective addresses

Technical Expert:

Principal
Ecosystem Planning and Restoration, LLC
17442 North Eldridge Parkway
Tomball, TX 77377

State:

Director of Environmental Affairs Division Texas Department of Transportation 125 E. 11th Street Austin, Texas 78701-2483

The notice shall be received by the addressee on the date delivered or deposited in the mail, unless otherwise provided. Either party may change the above address by sending written notice of such change to the other in the manner provided.

SECTION 8. INCORPORATION OF PROVISIONS. Attachments A through H are made part of this contract. The parties shall comply with the provisions of Attachments A through H as if they were set forth in full within the body of this contract.

THE TECHNICAL EXPERT

Ecosystem Planning and Restoration, LLC (Business name)

(Signature)

Clarence H. Kaiser III, Principal (Printed Name and Title)

(Date)

THE STATE OF TEXAS
TEXAS DEPARTMENT OF TRANSPORTATION

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Carlos Swonke, P.G.

<u>Director of Environmental Affairs Division</u>
(Printed Name and Title)

(Date)

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Attachments to Contract for Scientific Services Incorporated into the Contract by Reference

Attachments	Title
Α	General Provisions
В	Services To Be Provided by the State and the Technical Expert
B-1	Qualifications of Personnel
С	Not Applicable
D	Work Authorizations
	Form D-1 Work Authorization
	Form D-2 Supplemental to a Work Authorization
E	Schedule of Rates
F	Not Applicable
G	Not Applicable
H-SG	Historically Underutilized Business (HUB) Requirements for State
	Funded Professional or Technical Services Contracts – State of Texas
	HUB. Subcontracting plan required – See Attachment H Instructions
Exhibits	Title
H – 1	Subprovider Monitoring System Commitment Worksheet
H – 2	Subprovider Monitoring System Commitment Agreement
H - 4	Subprovider Monitoring System Final Report
H - 6	HUB Subcontracting Plan (HSP) Prime Contractor Progress
	Assessment Report

ATTACHMENT A

GENERAL PROVISIONS

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ATTACHMENT A

GENERAL PROVISIONS

ARTICLE 1. WORK AUTHORIZATIONS

- A. Use. The Technical Expert shall not begin any work until the State and the Technical Expert have signed a work authorization for the work. The State will make no payment for any work performed or cost incurred before a work authorization is fully executed or after the completion date specified in the work authorization. The completion date for a work authorization may not extend beyond the Contract Period. All work authorizations for new projects must be issued within two years after this contract is fully executed. Work authorizations to complete existing projects may be issued after the first two years, provided they do not initiate a new project.
- B. Contents. Each work authorization shall specify (1) the scope of work to be performed; (2) a period of performance with a beginning and ending date; (3) a full description of the work to be performed; (4) a schedule of deliverables; (5) a maximum cost; (6) whether the basis of payment is lump sum, unit cost, or specified rate; and (7) a work authorization budget calculated using rates set forth in Attachment E (Schedule of Rates). Additional contract terms and conditions may not be included in a work authorization. A work authorization may not waive any responsibilities or obligations contained in this contract. In the event of any conflict in terms and conditions between a work authorization and this contract, the terms and conditions of this contract shall prevail. Each work authorization shall be signed by both parties and become a part of this contract.
- C. Budget. A work authorization budget shall set forth in detail (1) a list of the work to be performed; (2) the computation of the cost of each deliverable described in the work authorization; and (3) the maximum amount payable under the work authorization. The State will not pay items of cost that are not authorized under Attachment E (Schedule of Rates) and will not pay rates that exceed those authorized in Attachment E (Schedule of Rates). A budget subsuming costs of multiple deliverables may not be invoiced until acceptance of the final deliverable by the State.
- **D. Basis for Calculating Reimbursement Costs.** The State will reimburse the Technical Expert for charges incurred in carrying out the services authorized in the Work Authorization, subject to the cost categories and estimated costs set forth in the Schedule of Rates in the contract and the Cost Basis of the Work Authorization. The State shall compensate the Technical Expert for only those eligible expenses incurred during the work authorization that are directly attributable to the completed portion of the work described in the work authorization, provided that the work has been completed in a manner satisfactory and acceptable to the State. The Technical Expert shall not incur or be reimbursed for any new obligations after the effective date of termination. The Technical Expert shall bill the State for actual travel expenses, not to exceed the limits reimbursable under state law. Out-of-state or out-of-country travel by the Technical Expert requires prior approval by the State.
- **E. No Guaranteed Work**. Work authorizations are issued at the discretion of the State. While it is the State's intent to issue work authorizations under this contract, the Technical Expert shall have no cause of action based on the State's failure to issue work authorizations under this contract or on the number of work authorizations issued.
- **F. Emergency Work Authorizations.** The State, in its sole discretion, may accept the Technical Expert's signature on a faxed copy of a work authorization as satisfying the Technical Expert's obligation to execute the work authorization if the signed original is received by the State within five business days after the State's receipt of the fax.

ARTICLE 2. SUPPLEMENTAL TO A WORK AUTHORIZATION

A. Necessity of Supplemental to a Work Authorization. Work under a work authorization is limited to the work specified in the work authorization. Before any work may be performed that is not specified in a work authorization and before any additional costs are incurred, the parties shall execute a supplemental to a work authorization in the form set forth as Form D-2 in Attachment D

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(Work Authorizations). A supplemental to a work authorization may not be executed after the expiration of the work authorization it is supplementing or outside the Contract Period. Under no circumstances will the State pay more than the maximum amount payable set forth in Attachment E (Schedule of Rates), as it may be amended by supplemental agreement from time to time.

- **B. Extension of Time.** If the Technical Expert determines or reasonably anticipates that the work authorized in a work authorization cannot be completed before the specified completion date, the Technical Expert shall promptly notify the State. In its sole discretion, the State may agree to extend the work authorization period by joint execution of a supplemental to a work authorization.
- **C. Change in Scope**. The scope of work authorized in a work authorization may only be altered through execution of a supplemental to a work authorization. If the change in scope affects the amount payable under a work authorization, a revised work authorization budget shall be incorporated in the supplemental to a work authorization.

ARTICLE 3. SUSPENSION OF WORK AUTHORIZATIONS

- A. Notice. The State may suspend a work authorization without terminating this contract by notifying the Technical Expert orally. Oral notification must be followed by written confirmation within two (2) weeks.
- **B. Reinstatement**. The state may reinstate a suspended work authorization by giving written notice. Unless waived in writing by the parties, the reinstatement will be effective sixty business days after the notice is provided.
- **C.** Contract Period Not Affected. Suspension of a work authorization does not affect the Contract Period. The work authorization will terminate under its own provisions or at the end of the Contract Period, whichever occurs first, unless this contract, the work authorization, or both are amended to authorize additional time, as appropriate.
- **D.** Limitation of Liability. The State is not liable for work performed or costs incurred before the date authorized by the State to begin work, during periods when work is suspended, or after the completion date of the work authorization, or after the Contract Period.

ARTICLE 4. SUPPLEMENTAL AGREEMENTS

The terms of this contract may be modified by Supplemental Agreement. A supplemental agreement must be fully executed within the Contract Period.

ARTICLE 5. ADDITIONAL WORK

- **A. Notice**. If the Technical Expert believes that any assigned work is beyond the scope of this contract or any work authorization issued under this contract, the Technical Expert shall promptly notify the State in writing and demonstrate how the assigned work constitutes additional work.
- **B.** Supplemental Agreement. If the State finds that the work does constitute additional work, the State shall so advise the Technical Expert. The parties may then execute a supplemental agreement, a work authorization, or a supplemental to a work authorization, as appropriate.
- **C. Waiver of Rights.** By failing to comply with this article, the Technical Expert waives any right to compensation or reimbursement with regard to additional work.

ARTICLE 6. PROGRESS

- **A. Communications**. From time to time during the progress of the work, the Technical Expert shall confer with the State. The Technical Expert shall prepare and present all information that is requested by the State or is necessary for the State to evaluate the work.
- **B. Reports**. The Technical Expert shall promptly advise the State in writing of events that may have a significant effect on the progress of a work authorization.
- (1) The Technical Expert shall promptly advise the State in writing of any problems, delays, or adverse conditions that will materially affect the ability to meet goals on schedule. This disclosure will

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be accompanied by statement of the action taken or contemplated and any state or federal assistance needed to resolve the situation.

(2) The Technical Expert shall also promptly advise the State in writing of favorable developments or events that enable meeting goals sooner than anticipated.

ARTICLE 7. PERSONNEL, EQUIPMENT, AND MATERIAL

- **A. Technical Expert Resources.** The Technical Expert shall maintain an office, employ sufficient personnel, and possess adequate equipment and materials to perform the services required under this contract. The Technical Expert certifies that it currently has adequate qualified personnel in its employment for performance of the services required under this contract or that it will be able to obtain adequate qualified personnel from sources other than the State.
- **B. Removal of Contractor Employee.** All employees of the Technical Expert assigned to this contract shall have sufficient knowledge and experience to enable them to perform the duties assigned to them. The State may require the Technical Expert to remove any employee from work authorized in this contract if in the sole opinion of the State, the work of that employee does not comply with this contract or the conduct of that employee is detrimental to the work.
- **C. Removal of Key Personnel.** The Technical Expert shall notify the State in writing as soon as possible after a project manager or key personnel is removed from work on this contract and shall give the reason for the removal. In any event, this notice must be given no later than three business days after the removal.
- **D. State Approval of Replacement Key Personnel.** The Technical Expert may not replace the project manager or key personnel, temporarily or permanently, without the advance written approval of the State.
- **E. Ownership of Acquired Property.** Except to the extent that a specific provision of this contract states to the contrary, the State shall own all intellectual property acquired or developed under this contract and all equipment purchased by the Technical Expert or its subcontractors under this contract. All intellectual property and equipment owned by the State shall be delivered to the State when the contract terminates.

ARTICLE 8. SUBCONTRACTING

- **A. Prior Approval.** The Technical Expert shall not assign, subcontract, or transfer any professional services related to the work under this contract without the advance written approval of the State.
- **B. Required Provisions.** All subcontracts for professional services shall include the provisions contained in Attachment A (General Provisions) and any other provisions required by law.
- **C. Technical Expert Responsibilities.** A subcontract does not relieve the Technical Expert of any responsibilities under this contract.

ARTICLE 9. TECHNICAL EXPERT'S RESPONSIBILITIES

Accuracy. The Technical Expert shall be responsible for the accuracy of work and shall promptly make any revisions or corrections made necessary by its errors, omissions, or negligent acts. The Technical Expert's responsibility for revisions and corrections under this article will be determined by the State. Errors made by the Technical Expert will remain the Technical Expert's responsibility as long as allowed by applicable law. If the Technical Expert submits work that does not comply with the terms of this contract, the State shall instruct the Technical Expert to take actions necessary to bring the work into compliance with this contract. No additional compensation shall be paid for work performed under this paragraph.

ARTICLE 10. INSPECTION OF WORK

A. Review Rights. Authorized representatives of the State and, when federal funds are used, the U.S. Department of Transportation shall have the right at all reasonable times to review the work performed under this contract and the premises in which work is being performed.

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B. Reasonable Access. The Technical Expert shall provide and require its subproviders to provide all reasonable facilities and assistance for the safety and convenience of state or federal representatives in the performance of their duties.

ARTICLE 11. SUBMISSION OF WORK PRODUCT

At the State's request, all work products shall be submitted in preliminary form for approval by the State before the final work product is issued. The State's comments on the Technical Expert's preliminary work product shall be addressed in the final work product.

ARTICLE 12. MAINTENANCE, RETENTION, AND AUDIT OF RECORDS

- A. Retention Period. The Technical Expert shall maintain all books, documents, papers, accounting records, and other evidence pertaining to costs incurred and services provided (Records). The Technical Expert shall make the Records available at its office during the Contract Period and for seven years from the date of final payment under this contract, until completion of all audits, or until pending litigation has been completely and fully resolved, whichever occurs last.
- **B.** Availability. The State, the Federal Highway Administration, the United States Department of Transportation, its Office of Inspector General, the State Auditor's Office, and the United States Comptroller General shall have access to the Records for the purpose of making audits, examinations, excerpts, and transcriptions.
- C. State Auditor. The State Auditor may conduct an audit or investigation of any entity receiving funds directly under this contract or indirectly through a subcontract under this contract. Acceptance of funds directly under this contract or indirectly through a subcontract under this contract acts as acceptance of the authority of the State Auditor, under the direction of the legislative audit committee, to conduct an audit or investigation in connection with those funds. An entity that is the subject of an audit or investigation must provide the State Auditor with access to any information the State Auditor considers relevant to the investigation or audit.

ARTICLE 12 A. LICENSE FOR TXDOT LOGO USE

- A. Grant of License; Limitations. The Technical Expert is granted a limited revocable non-exclusive license to use the registered TxDOT trademark logo (TxDOT Flying "T") on any deliverables prepared under this contract that are the property of the State. The Technical Expert may not make any use of the registered TxDOT trademark logo on any other materials or documents unless it first submits that request in writing to the State and receives approval for the proposed use. The Technical Expert agrees that it shall not alter, modify, dilute, or otherwise misuse the registered TxDOT trademark logo or bring it into disrepute.
- **B. Notice of Registration Required**: The Technical Expert's use of the Flying 'T' under this article shall be followed by the capital letter R enclosed within a circle (®) that gives notice that the Flying 'T' is registered in the United States Patent and Trademark Office (USPTO).
- **C. No Assignment or Sublicense.** The Technical expert may not assign or sublicense the rights granted by this article without the prior written consent of the State.
- **D. Term of License.** The license granted to the Technical Expert by this article shall terminate at the end of the term specified in Article 2 of this contract.

ARTICLE 13. CIVIL RIGHTS COMPLIANCE

- **A. Compliance with Regulations.** The Technical Expert shall comply with the regulations of the U.S. Department of Transportation, 49 CFR Parts 21, 25, 27, and 28, as they relate to nondiscrimination, and with Executive Order 11246, titled Equal Employment Opportunity, as amended by Executive Order 11375. These regulations and orders are collectively referred to as the Regulations.
- B. Nondiscrimination. The Technical Expert, with regard to the work performed by it during this contract, shall not discriminate on the basis of race, color, sex, national origin, age, religion, or

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disability in the selection and retention of subcontractors, including procurement of materials and leases of equipment.

- C. Solicitations for Subcontracts. In all solicitations for work to be performed under a subcontract, including procurement of materials or leases of equipment, each potential subcontractor or supplier shall be notified by the Technical Expert of the Technical Expert's obligations under this contract and the Regulations relative to nondiscrimination on the basis of race, color, sex, national origin, age, religion, or disability.
- D. Information and Reports. The Technical Expert shall provide all information and reports required by the Regulations or by directives issued under the Regulations. The Technical Expert shall also permit access to its books, records, accounts, other sources of information, and to its facilities, to the extent they are determined by the Texas Department of Transportation or the Federal Highway Administration to be pertinent to ascertaining compliance with the Regulations or directives issued under the Regulations. If any information requested of the Technical Expert is in the exclusive possession of another who fails or refuses to furnish this information, the Technical Expert shall so certify to the Texas Department of Transportation or the Federal Highway Administration, as appropriate, and shall explain in detail the efforts it has made to obtain the information.
- **E. Sanctions for Noncompliance**. If the Technical Expert does not comply fully with the nondiscrimination provisions of this contract, the State shall impose whatever contract sanctions it or the Federal Highway Administration considers appropriate, including:
 - 1. Withholding payments until the Technical Expert complies; or
 - 2. Terminating or suspending this contract, in whole or in part.
- **F.** Incorporation of Provisions. The Technical Expert shall include the provisions of paragraphs (A) through (E) in every subcontract, including procurement of materials and leases of equipment, unless exempted by the Regulations or directives issued under the Regulations. If the Technical Expert becomes involved in or is threatened with litigation with a subcontractor or supplier as a result of its inclusion of these provisions, the Technical Expert may ask the State to enter into that litigation to protect the interests of the State and may ask the United States to enter into that litigation to protect the interests of the United States.

ARTICLE 14. INSURANCE

The Technical Expert certifies that it has insurance on file with Contract Services of the Texas Department of Transportation in the amount specified on Form 1560-CSS. The Technical Expert certifies that it will keep current insurance on file with that office for the duration of the Contract Period. If insurance lapses during the Contract Period, the Technical Expert shall cease work until a new certificate of insurance is provided.

ARTICLE 15. CHILD SUPPORT CERTIFICATION

Under Section 231.006, Texas Family Code, the Technical Expert certifies that the individual or business entity named in this contract, bid, or application is not ineligible to receive the specified grant, loan, or payment and acknowledges that this contract may be terminated and payment may be withheld if this certification is inaccurate. If the above certification is shown to be false, the Technical Expert is liable to the state for attorney's fees, the cost necessary to complete the contract, including the cost of advertising and awarding a second contract, and any other damages provided by law or the contract. A child support obligor or business entity ineligible to receive payments because of a payment delinquency of more than thirty (30) days remains ineligible until: all arrearages have been paid; the obligor is in compliance with a written repayment agreement or court order as to any existing delinquency; or the court of continuing jurisdiction over the child support order has granted the obligor an exemption from Subsection (a) of Section 231.006, Texas Family Code, as part of a court-supervised effort to improve earnings and child support payments.

ARTICLE 16. OWNERSHIP OF DATA

- **A. Work for Hire.** All services provided under this contract are considered work for hire, and all data, basic sketches, charts, calculations, plans, specifications, and other documents created or collected under the terms of this contract are the property of the State.
- **B.** Disposition of Documents. All documents and data prepared by the Technical Expert and all documents and data furnished to the Technical Expert by the State shall be delivered to the State at its request. The Technical Expert, at its own expense, may retain copies of documents or any other data that have been furnished the State under this contract, but use of the documents or data is subject to permission by the State.
- C. Release of Scientific Services Data and Documents. The Technical Expert will not release any scientific services data or documents created or collected under this contract except to its subproviders and to the extent necessary to complete this contract. All subcontracts shall include a provision that acknowledges the State's ownership of the data and documents and prohibits its use except to the extent necessary to complete this contract. The Technical Expert is responsible for any improper use of the data or documents by its employees, officers, or subproviders, including costs, damages, or other liability resulting from improper use. Neither the Technical Expert nor any subprovider may charge a fee for scientific services data or documents.

ARTICLE 17. PATENT RIGHTS

The State and the U. S. Department of Transportation shall have the royalty-free, nonexclusive, and irrevocable right to use and to authorize others to use any patents developed by the Technical Expert under this contract.

ARTICLE 18. COMPLIANCE WITH LAWS

The Technical Expert shall comply with all applicable federal, state, and local laws, statutes, codes, ordinances, rules, and regulations and with the orders and decrees of any court and of any administrative body or tribunal in any manner affecting the performance of this contract, including worker's compensation laws, minimum and maximum salary and wage statutes and regulations, nondiscrimination laws, and licensing laws and regulations. At the request of the State, the Technical Expert shall furnish satisfactory proof of its compliance with this article.

ARTICLE 19. NONCOLLUSION

- **A. Warranty.** The Technical Expert warrants that it has not employed or retained any company or person, other than a bona fide employee working solely for the Technical Expert, to solicit or secure this contract and that it has not paid or agreed to pay any company or Technical Expert any fee, commission, percentage, brokerage fee, gifts, or any other consideration, contingent on or resulting from the award or making of this contract.
- **B.** Liability. For breach or violation of this warranty, the State shall have the right to annul this contract without incurring any liability or in its discretion, to deduct from the contract price or compensation or otherwise to recover the full amount of the fee, commission, percentage, brokerage fee, gifts, or other consideration.

ARTICLE 20. DEBARMENT CERTIFICATIONS

The parties are prohibited from making any award at any tier to any party that is debarred or suspended or otherwise excluded from or ineligible for participation in Federal Assistance Programs under Executive Order 12549, "Debarment and Suspension." By executing this agreement, the Technical Expert certifies that it is not currently debarred, suspended, or otherwise excluded from or ineligible for participation in Federal Assistance Programs under Executive Order 12549. The parties to this contract shall require any party to a subcontract or purchase order awarded under this contract to certify its eligibility to receive Federal funds and, when requested by the State, to furnish a copy of the certification.

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ARTICLE 21. LOBBYING CERTIFICATION

In executing this contract, the signatories certify to the best of his or her knowledge and belief, that:

A. Payment of Funds. No federal appropriated funds have been paid or will be paid by or on behalf of the parties to any person for influencing or attempting to influence an officer or employee of any federal agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with the awarding of any federal contract, the making of any federal grant, the making of any federal loan, the entering into of any cooperative agreement, and the extension, continuation, renewal, amendment, or modification of any federal contract, grant, loan, or cooperative agreement.

- **B.** Certification of Status. The Technical Expert certifies that it is not:
 - 1. a person required to register as a lobbyist under Chapter 305, Government Code;
 - 2. a public relations firm; or
 - 3. a government consultant.
- **C. Disclosure Form.** If any funds other than federal appropriated funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with federal contracts, grants, loans, or cooperative agreements, the signatory for the Funding Agency shall complete and submit the federal Standard Form-LLL, "Disclosure Form to Report Lobbying," in accordance with its instructions.
- **D. Subawards.** The parties shall require that the language of this certification be included in the award documents for all subawards at all tiers (including subcontracts, subgrants, and contracts under grants, loans, and cooperative agreements) and that all subrecipients shall certify and disclose accordingly.
- **E. Penalties.** Submission of this certification is a prerequisite imposed by Title 31 U.S.C. §1352 for making or entering into this transaction. Any person who fails to file the required certification shall be subject to a civil penalty of not less than \$10,000 and not more than \$100,000 for each such failure.

ARTICLE 22. GRATUITIES

- **A. Employees Not To Benefit.** Employees of the Texas Department of Transportation may not accept any benefit, gift, or favor from any person who is doing business with or who reasonably speaking may do business with the State under this contract. The only exceptions are ordinary business lunches and items that have received the advance written approval of the Executive Director of the Texas Department of Transportation.
- **B.** Liability. The State may terminate this contract if the Technical Expert or any other person who is doing business with or who reasonably speaking may do business with the State under this contract offers benefits, gifts, or favors to State employees in violation of this policy.

ARTICLE 23. CONFLICT OF INTEREST

The Technical Expert represents that its firm has no conflict of interest that would in any way interfere with its or its employees' performance of services for the department or which in any way conflicts with the interests of the department. The Technical Expert further certifies that this agreement is not barred because of a conflict of interest pursuant to Texas Government Code, Section 2261.252, between it and the State. Specifically, the Technical Expert certifies that none of the following individuals, nor any or their family members within the second degree of affinity or consanguinity, owns 1% or more interest, or has a financial interest as defined under Texas Government Code, Section 2261.252(b), in the Technical Expert: any member of the Texas Transportation Commission, TxDOT's Executive Director, General Counsel, Chief of Procurement and Field Support Operations, Director of Procurement, or Director of Contract Services. The firm shall exercise reasonable care and diligence to prevent any actions or conditions that could result in a conflict with the department's interests.

ARTICLE 24. INDEMNIFICATION

A. Errors, Omissions, Negligent Acts. The Technical Expert shall indemnify the State and its officers and employees from all claims and liability that result from any error, omission, or negligent act of the Technical Expert or of any person employed by the Technical Expert under this contract.

B. Attorney Fees. The Technical Expert shall also indemnify the State from any and all expense, including attorney fees that may be incurred by the State in litigation or otherwise, to the extent that the expense results from any error, omission, or negligent act of the Technical Expert or of any person employed by the Technical Expert under this contract.

ARTICLE 25. DISPUTES

- **A. Procurements by the Technical Expert.** The Technical Expert shall be responsible for the resolution of any claim arising out of any procurement made by the Technical Expert in support of the services authorized by this contract.
- **B. Disputes Concerning Work or Cost.** Any dispute concerning this contract or work or rates under this contract shall be resolved under 43 TAC §9.2.

ARTICLE 26. TERMINATION AND REMEDIES

- A. Causes. This contract may be terminated by:
 - 1. Written agreement of the parties;
- 2. Written notice from either party because the other party did not fulfill its contractual obligations; or
 - 3. Thirty days' written notice from the State, with or without cause.
- **B. Payments Due After Termination.** If the State terminates this contract, the State will not be liable for any fees other than those that are due at the time of termination. If this contract is terminated under Article 26(A)(3), the Technical Expert shall not incur costs during the thirty days after notice is given if those costs are more than the costs incurred during the immediately preceding thirty days.
- C. Value of Completed Work. The State shall determine the value of any work that has been done at the time of termination. Compensation for partial work shall be calculated on the basis of the percentage of work completed at the time of termination. In making that calculation, the State will consider
- 1. Actual costs incurred, not to exceed the rates set forth in Attachment E (Schedule of Rates), in performing the work to the date of termination;
 - 2. The amount of work that was satisfactorily completed as of the date of termination;
 - 3. The value of the work that is usable to the State;
 - 4. The cost to the State of employing another firm to complete the required work;
 - 5. The time required to employ another firm to complete the work;
 - 6. Other factors that affect the value to the State of the work performed.
- **D. Payment of Additional Costs.** If this contract is terminated under Article 26(A)(2), the State may take over the project and prosecute the work to completion. The Technical Expert shall be liable to the State for any additional cost to the State caused by the termination.
- **E. Excusable Delays.** Except with respect to defaults by subproviders, the Technical Expert will not be considered in default for any failure that arises out of causes beyond the control and without the negligence of the Technical Expert. These include acts of God or the public enemy, acts of the Government in its sovereign or contractual capacity, fires, floods, epidemics, quarantine restrictions, strikes, freight embargoes, and unusually severe weather.
- **F. Surviving Requirements.** Except for provisions that specifically establish responsibilities that extend beyond the Contract Period, termination and payment under this article extinguish the rights, duties, and obligations of the State and the Technical Expert under this contract.

G. Remedies. This contract shall not be considered as specifying the exclusive remedy for any default. All legal remedies may be pursued by either party and shall be cumulative.

ARTICLE 27. SEVERABILITY

If any provision in this contract is for any reason held to be invalid, illegal, or unenforceable in any respect, that invalidity, illegality, or unenforceability shall not affect any other provision of this contract. In that case, this contract shall be construed as if the invalid, illegal, or unenforceable provision had never been contained in it.

ARTICLE 28. SUCCESSORS AND ASSIGNS

The Technical Expert and the State bind themselves and their successors, executors, administrators, and assigns to each other party of this contract and to the successors, executors, administrators, and assigns of each other party with regard to all covenants of this contract. The Technical Expert shall not assign, subcontract, or transfer its interest in this contract without the written approval of the State.

ARTICLE 29. PRIOR CONTRACTS SUPERSEDED

This contract constitutes the sole agreement of the parties for the services authorized in it and supersedes any prior understandings or written or oral contracts between the parties respecting its subject matter.

ARTICLE 30. NEPOTISM DISCLOSURE

- A. In this section the term "relative" means:
 - (1) a person's great grandparent, grandparent, parent, aunt or uncle, sibling, niece or nephew, spouse, child, grandchild, or great grandchild, or
 - (2) the grandparent, parent, sibling, child, or grandchild of the person's spouse.
- **B.** A notification required by this section shall be submitted in writing to the person designated to receive official notices under this contract and by first-class mail addressed to Contract Services Office, Texas Department of Transportation, 125 East 11th Street, Austin Texas 78701. The notice shall specify the Technical Expert's firm name, the name of the person who submitted the notification, the contract number, the district, division, or office of TxDOT that is principally responsible for the contract, the name of the relevant Technical Expert employee, the expected role of the Technical Expert employee on the project, the name of the TxDOT employee who is a relative of the Technical Expert employee, the title of the TxDOT employee, the work location of the TxDOT employee, and the nature of the relationship.
- **C**. By executing this contract, the Technical Expert is certifying that the Technical Expert does not have any knowledge that any of its employees or of any employees of a subcontractor who are expected to work under this contract have a relative that is employed by TxDOT unless the Technical Expert has notified TxDOT of each instance as required by subsection (b).
- **D.** If the Technical Expert learns at any time that any of its employees or that any of the employees of a subcontractor who are performing work under this contract have a relative who is employed by TxDOT, the Technical Expert shall notify TxDOT under subsection (b) of each instance within thirty days of obtaining that knowledge.
- **E.** If the Technical Expert violates this section, TxDOT may terminate the contract immediately for cause, may impose any sanction permitted by law, and may pursue any other remedy permitted by law.

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ARTICLE 31. OFFICE OF MANAGEMENT AND BUDGET AUDIT REQUIREMENTS

The parties shall comply with the requirement of the Single Audit Act of 1984, P.L. 98-502, ensuring that the single audit report includes the coverage stipulated in 2 CFR 200.

ARTICLE 32. PUBLIC INFORMATION AND CONFIDENTIALITY

The Technical Expert is required to make any information created or exchanged with the state pursuant to this contract, and not otherwise excepted from disclosure under the Texas Public Information Act, available in a format that is accessible by the public at no additional charge to the state.

ARTICLE 33. E-VERIFY CERTIFICATION

Pursuant to Executive Order RP-80, the technical expert certifies and ensures that for all contracts for services, the technical expert shall, to the extent permitted by law, utilize the United States Department of Homeland Security's E-Verify system during the term of this agreement to determine the eligibility of:

- 1. All persons employed by the technical expert during the term of this agreement to perform duties within the State of Texas; and
- 2. All persons, including subcontractors, assigned by the technical expert to perform work pursuant to this agreement.

Violation of this provision constitutes a material breach of this agreement.

ARTICLE 34. RESTRICTIONS ON EMPLOYMENT OF FORMER STATE OFFICER OR EMPLOYEE

The Technical Expert shall not hire a former state officer or employee of a state agency who, during the period of state service or employment, participated on behalf of the state agency in this agreement's procurement or its negotiation until after the second anniversary of the date of the officer's or employee's service or employment with the state agency ceased.

ATTACHMENT B

SERVICES TO BE PROVIDED BY THE STATE AND THE TECHNICAL EXPERT

I. SERVICES TO BE PROVIDED BY THE STATE

- 1. Provide name, address and phone number of the State's authorized representative.
- 2. Provide any records available which would assist in the completion of the environmental services.
- 3. Provide engineering data which would assist in the completion of the environmental services.
- 4. Assist in the coordination of site visits, scheduling and right of entry.
- 5. Review recommendations offered by the Technical Expert and approve or reject any or all work performed under this contract.
- 6. Review progress of work and provide final acceptance of all documents.
- 7. Process all periodic payment requests submitted by Technical Expert.
- 8. Submit documentation to regulatory agencies for review and comment when specified in a work authorization.
- 9. Provide the Technical Expert with all comments regarding their review of the environmental services completed.
- 10. Provide right of entry from public or private land owners to allow environmental services to be performed. Right of entry permission shall be written and signed by the land owner. Letters or other materials seeking right of entry shall contain explicit reference to the kinds of activities for which right of entry is requested and an indication of the impacts (if any) that will result from performance of environmental services.
- 11. Prepare and issue Work Authorizations to the Technical Expert.

The work authorization shall include the following:

- a. Budget of detailed costs, by task, for all deliverables specified,
- b. Key technical experts,
- c. District, HWY Limits, CSJ #, (other pertinent details for identification of project)
- d. Work to be performed.
- e. Deliverables to be submitted to the State,
- f. Type of format in which the deliverables should be written, (report, technical reports, spreadsheets, environmental documents, presentation, etc.)
- g. Schedule of deliverables (liquidated damages will be charged due to the Technical Expert's failure to meet deliverable dates outside the State's fault),
- h. Number of deliverables to be submitted.
- i. Communication Processes (details of all communication between technical expert and TxDOT will be included in each project specific work authorization).
- 12. Provide the Technical Expert, where necessary, with barriers, cones, and other traffic control equipment or personnel needed to assure safe working conditions in the project area; and
- 13. Provide the Technical Expert with maps delineating project area limits, existing and proposed right of way limits, existing alignments, utilities, and other information relevant to locating and describing the project area as such information is available to the State.

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II. AGENCIES IDENTIFIED IN THE CONTRACT

- 1. AASHTO American Association of State Highway and Transportation Officials
- 2. BEG Bureau of Economic Geology, University of Texas at Austin
- 3. CEQ Council on Environmental Quality
- 4. Division Environmental Affairs Division of the Texas Department of Transportation
- 5. District One of the 25 geographical districts into which the Texas Department of Transportation is divided.
- 6. FEMA Federal Emergency Management Agency
- 7. FHWA Federal Highway Administration
- 8. IBWC International Boundary and Water Commission
- 9. MPO Metropolitan Planning Organization
- 10. NRCS Natural Resource Conservation Service (formerly Soil Conservation Service)
- 11. SHPO State Historic Preservation Office
- 12. State Texas Department of Transportation acting on behalf of the State of Texas
- 13. TARL Texas Archeological Research Laboratory
- 14. THC Texas Historical Commission
- 15. TCEQ Texas Commission on Environmental Quality (formerly TNRCC)
- 16. TPWD Texas Parks and Wildlife Department
- 17. TxDOT Texas Department of Transportation
- 18. USACE United States Army Corps of Engineers
- 19. USCG United States Coast Guard
- 20. USEPA United States Environmental Protection Agency
- 21. USFWS United States Fish and Wildlife Service
- 22. USGS United States Geological Survey

III. ENVIRONMENTAL TERMS IDENTIFIED IN THIS CONTRACT

- 1. 4(f) refers to the original section within the U.S. Department of Transportation (DOT) Act of 1966, which established the requirement for consideration of park and recreational lands, wildlife and waterfowl refuges, and historic sites in transportation project development. The law, now codified in 49 U.S.C. §303 and 23 U.S.C. §138, is implemented by the Federal Highway Administration (FHWA) through the regulation 23 CFR §774.
- 2. 401 refers to Section 401 of the Clean Water Act (33 U.S.C. §1251 et seq.), and which requires that an applicant for a federal license or permit provide a certification that any discharges from the facility will comply with the act, including water quality standard requirements.
- 404 refers to Section 404 of the Clean Water Act, and which establishes a program to regulate the discharge of dredged and fill material into waters of the United States, including wetlands. Responsibility for administering and enforcing Section 404 is shared by the U.S. Army Corps of Engineers (USACE) and EPA.
- 4. APE Area of Potential Effects
- 5. Archeological Historic Property an archeological site eligible for inclusion in the National Register of Historic Places (36 CFR §60) or for designation as a State Archeological Landmark (SAL) (Title 13, TAC, Part 2, Chapter 26).
- 6. CE Categorical Exclusion
- 7. CFR Code of Federal Regulations
- 8. CIA Community Impacts Analysis
- 9. CSJ Control Section Job
- 10. Deliverables Reports for environmental services
- 11. EA Environmental Assessment
- 12. EIS Environmental Impact Statement
- 13. Environmental Services environmental documents, studies, research, permit applications, public involvement, training and other activities for completion of an environmental document.
- 14. Environmental Compliance Toolkits the official location for approved policies, procedures, standards, and guidance from the Environmental Affairs Division of TxDOT.
- 15. EPIC Environmental Permits Issues and Commitments
- 16. FHWA Technical Advisory T 6640.8A (1987) FHWA Format Guidance
- 17. FONSI Finding of No Significant Impact (23 CFR §771 and TAC, Title 43)
- 18. HABS Historical American Building Survey
- 19. HAER Historic American Engineering Record
- Historic-age resource a building, structure, object or non-archeological site (defined in accordance with 36 CFR §60) that is at least 50 years old at the time of a transportation project's letting.
- 21. Historic Property a building, structure, object or non-archeological site eligible for inclusion in the National Register of Historic Places (36 CFR §60).
- 22. IP Individual Permit

- 23. ISA Initial Site Assessment
- 24. MSAT Mobile Source Air Toxics
- 25. NEPA National Environmental Policy Act of 1969
- 26. NCHRP National Cooperative Highway Research Program
- 27. NHPA National Historic Preservation Act
- 28. NRHP National Register of Historic Places
- 29. NRI Nationwide River Inventory
- 30. NWP Nation Wide Permit
- 31. PCN Pre-Construction Notification
- 32. Programmatic Section 4(f) Evaluation A type of Section 4(f) evaluation that may be prepared for projects with minor impacts on areas protected by Section 4(f)s provided that the project meets FHWA's programmatic thresholds.
- 33. Project Area a geographic area designated for performance of specified analyses, such as wetland or archeological studies.
- 34. SAL State Archeological Landmark
- 35. Section 4(f) Evaluation an evaluation prepared when a project proposed to use resources from any significant publicly owned public parks, recreation areas, or wildlife and waterfowl refuges and any land from an historic sites of national, state or local significance provided that the project meets FHWA's programmatic thresholds.
- 36. Section 7 refers to Section 7 of the federal Endangered Species Act (ESA) of 1973 (16 U.S.C. §1531 et seq.), called "Interagency Cooperation," which is the mechanism by which Federal agencies ensure the actions they take, including those they fund or authorize, do not jeopardize the existence of any listed species.
- 37. Section 106 refers to Section 106 of the National Historic Preservation Act of 1966 (16 U.S.C. §470 et seq.), which requires Federal agencies to take into account the effects of their undertakings on historic properties and to provide the Advisory Council on Historic Preservation (ACHP) with a reasonable opportunity to comment. In addition, federal agencies are required to consult on the Section 106 process with State Historic Preservation Offices (SHPO), Tribal Historic Preservation Offices (THPO), Indian Tribes (to include Alaska Natives) [Tribes], and Native Hawaiian Organizations (NHO).
- 38. SOU Standards of Uniformity these standards were used by TxDOT (prior to the introduction in 2014 of the *Environmental Compliance Toolkits*) to define the state and/or federal minimum requirements for each element of a work product (e.g., Categorical Exclusion, or Environmental Assessment), and had the expressed purpose of speeding approval and avoiding or minimizing repetition or unnecessary revisions of work. (In this context, "work products" included supporting items in projects files).
- 39. Study Area the geographic area to be discussed in an environmental document.
- 40. TAC Texas Administrative Code
- 41. Technical Expert An institution, firm, individual, or team awarded a contract for performing services under the contract.
- 42. Transportation Activity a construction or other project performed by the State or under its jurisdiction.

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- 43. Transportation Project The planning, construction, or reconstruction of a transportation facility that the department has the legal authority to plan, construct, or reconstruct, including but not limited to, a public road or highway, bridge, ferry, transit facility, or high occupancy vehicle lane.
- 44. USC United States Code
- 45. Wetland Determination Preliminary study to determine whether a wetland is present.
- 46. Wetland Delineation Demarcation of the boundaries of a wetland in accordance with the most current version of the USACE Wetland Delineation Manual (Technical Report Y-87-1).
- 47. Waters of the U.S. Jurisdictional limits of the U.S. Army Corps of Engineers under the Clean Waters Act, as defined in 33 CFR §328.

IV. SERVICES TO BE PROVIDED BY THE TECHNICAL EXPERT

Work performed under this contract must be within the scope of services of the contract. All work performed under this contract shall be written in specific work authorization written underneath the contract. The Technical Expert shall:

- Perform all work in accordance with TxDOT's latest practices, criteria, specifications, policies, procedures, and Environmental Compliance Toolkits relevant to the environmental document.
 All documents shall be sufficient to satisfy the procedures given in the current Environmental Compliance Toolkit available from the State.
- 2. Act as an agent for the State when specified in a work authorization.
- 3. Produce a complete and acceptable deliverable for each environmental service performed for environmental documentation.
- 4. Follow the performance specifications in the contract for performing environmental services.
- 5. Meet with project designers to incorporate environmental data into identification of alternatives.
- 6. Notify the State of schedule for all field activities.
- 7. Execution of the work authorization shall constitute agreement between the Technical Expert and the State that levels of effort beyond those specified in the work authorization are not required. The work authorization shall not eliminate deliverables required by the specifications in the contract. All services shall be completed by submission of a deliverable to the State.
- 8. Seek right of entry from public or private land owners to perform environmental services. Right of entry permission shall be written and signed by the land owner. Develop letters or other materials for seeking right of entry. Letters or other materials seeking right of entry shall not be distributed without prior approval of the State. Letters or other materials seeking right of entry shall contain explicit reference to the kinds of activities for which right of entry is requested and an indication of the impacts (if any) that will result from performance of environmental services.
- 9. Notify the State immediately if performance of environmental services discloses the presence or likely presence of significant impacts (in accordance with 40 CFR §§1500-1508). Inform the State of the basis for concluding that there are significant impacts and the basis for concluding that the impacts may require mitigation. If required, the State will process a supplemental work authorization.
- 10. If environmental services performed by the Technical Expert result in identification of impacts or a level of controversy that may elevate the Transportation Activity's status from a categorical exclusion or environmental assessment, immediately notify the State and the State will reassess the appropriate level of documentation.

Environmental Documentation / Deliverables

Each environmental service performed under specific work authorizations under this contract shall have a deliverable. The Technical Expert shall summarize the methods used for the environmental services and results achieved for the services. The summary of results shall be sufficiently detailed to provide satisfactory basis for thorough review by the State, FHWA, and (where applicable) agencies with regulatory oversight. All deliverables shall meet regulatory requirements for legal sufficiency.

- Deliverables shall contain all data acquired during the environmental service. All deliverables shall be written to be understood by the public and must be in accordance with the TxDOT On-Line Environmental Manual, current Environmental Compliance Toolkits, current guidelines, and policies and procedures.
- 2. Electronic versions of each deliverable must be written in software which is compatible to the State and must be provided in a changeable format for future use by the State. The Technical Expert shall supplement all hard copy deliverables with electronic copies in searchable Adobe Acrobat™ (.pdf) format, unless another format is specified in the work authorization. Each deliverable shall be a single, searchable .pdf file that mirrors the layout and appearance of the physical deliverable. The Technical Expert shall deliver the electronic files on CD-R or CD-RW media in Microsoft Windows format.
- 3. In the event the Technical Expert fails to provide the specified deliverables to TxDOT by the specified dates, TxDOT may, at its sole discretion, require the vendor to pay liquidated damages. Delays in deliverables caused by reasons outside the Technical Expert's control are not subject to liquidated damages.
- 4. When the environmental service is to apply for a permit (e.g., USCG or USACE), the permit application and all supporting documentation shall be the report and deliverable.
- 5. Submission and Revision of Deliverables
 - a. Deliverables shall consist of reports of environmental services performed.
 - b. The deliverables shall go through the Technical Expert's internal quality review before being sent to the State.
 - c. Deliverables must comply with all applicable state and federal environmental laws, regulations and procedures.
 - d. Revisions should be submitted with a comment response form (matrix) in the format provided by the Division.
- 6. Unless otherwise directed by the State, deliverables, electronic copies and other materials accompanied by a transmittal letter, shall be commercially delivered to:

Texas Department of Transportation

Attn: Manny Francisco - APD

7600 Washington Avenue

Houston, TX 77007

- 7. The State shall provide the State's, FHWA's and other agency comments on draft reports to the Technical Expert. The Technical Expert will revise the report:
 - a. to reflect changes made by the State in the Transportation Activity;
 - b. to include any agency commitments, findings, agreements, or determinations (e.g., wetlands, endangered species consultation, Section 106, Section 4(f)) required for the

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Transportation Activity upon request by the State;

- c. to incorporate the results of public involvement and agency coordination;
- d. to reflect changes in the Transportation Activity or mitigation measures resulting from comments received or changes in the Transportation Activity or mitigation measures; and
- e. to address errors and omissions identified by the State, FHWA, and other regulatory agencies.
- 8. All photographs shall be well focused and clearly depict details relevant to an evaluation of the project area. Photographs shall be one original print of each image or electronic presentations of comparable quality. Comparable quality electronic photograph presentations shall be at least 1200x1600 pixel resolution. Photographs shall be attached to separately labeled pages that clearly identify project name, project identification (ID) number, address or Universal Transverse Mercator (UTM) of resource, description of the picture and direction of the photographic view.

Quality Assurance / Quality Control Review Services

When authorized by an executed work authorization, the Technical Expert shall perform quality assurance/quality control (QA/QC) reviews of environmental documents and on other supporting environmental documentation prepared by other consultants or prepared by the State.

- The District/Division of the State producing an environmental document (document) or environmental documentation (documentation) shall electronically transmit the document or documentation to the Environmental Affairs Division for QA/QC review by the Technical Expert. The Technical Expert shall perform QA/QC reviews to determine whether documents and documentation conform with:
 - a. specifications in Sections 1-43 of Attachment B, Services to be Provided by the State and the Technical Expert, of the contract;
 - b. current Environmental Compliance Toolkits published by the State's Environmental Affairs Division and in effect as of the date of receipt of the documents or documentation to be reviewed:
 - c. current state and federal laws, regulations, policies, guidance, and agreements between the State and other state or federal agencies; and
 - d. FHWA/AASHTO guidelines contained in "Improving the Quality of Environmental Documents, A Report of the Joint AASHTO/ACEC Committee in Cooperation with the Federal Highway Administration" (May 2006) for:
 - i. readability, and
 - ii. use of evidence and data in documents to support conclusions.
- 2. The Technical Expert shall note all deviations from conformance with specifications, Environmental Compliance Toolkits, laws, regulations, policies, guidance, and agreements. The Technical Expert shall identify specific requirements that have not been met, and shall summarize the reasons how the document or documentation does not conform. The Technical Expert shall document any difficulty applying specifications, Environmental Compliance Toolkits, laws, regulations, policies, guidance, and agreements.

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- 3. For Environmental Assessments and Environmental Impact Statements, the Technical Expert shall evaluate the document's conformance with "Improving the Quality of Environmental Documents, A Report of the Joint AASHTO/ACEC Committee in Cooperation with the Federal Highway Administration" (May 2006). The recommendations shall cite specific ways in which to improve the document and the environmental process.
- 4. In cases where QA/QC review discloses that the specifications in Attachment B, Services to be Provided by the State and the Technical Expert, of the contract, or the Environmental Compliance Toolkits conflict with current state and federal laws, regulations, policies, or guidance, the review shall note the conflict, and determine whether the document meets the requirements of state and federal laws, regulations, policies, or guidance.
- On completion of the review, the Technical Expert shall submit its report along with the document or documentation to the Environmental Affairs Division. The Technical Expert shall transmit electronic reviews via e-mail with hard-copy back-up on request. For e-mails with graphic attachments or attachments that are larger than 3 megabytes, the Technical Expert shall transmit a follow-up e-mail requesting confirmation of receipt by the Environmental Affairs Division.
- 6. The State reserves the right to approve Technical Expert staff assigned to QA/QC reviews. QA/QC reviews shall be performed by personnel meeting or exceeding the qualifications in Attachment B-1 to the contract.
- 7. The Technical Expert staff shall be subject-matter experts and technical editors that review documents or documentation.
- 8. When specified in a work authorization, the Technical Expert shall
 - a. review the State's project files to determine whether the files contain complete documentation necessary to support the document or decision;
 - b. travel to the project area described in the document or documentation to verify conditions reported in the document or documentation.
- 9. When specified in a work authorization, the Technical Expert shall assist the State in the development of Environmental Compliance Toolkits and other procedures needed to standardize:
 - a. production of documents and documentation;
 - b. performance of QA/QC review; and
 - c. recording project data used to analyze and report the effectiveness of the State's document and documentation program.
- 10. The Environmental Affairs Division Subject Matter Experts shall review the Technical Expert's comments on the document before sending back to the district/division for correction.
- 11. The Technical Expert represents that it has no conflict of interest that would in any way interfere with its or its employees' performance of services for the State or that in any way conflicts with the interests of the State. The Technical Expert shall exercise reasonable care and diligence to prevent any actions or conditions that could result in a conflict with the State's interests. The Technical Expert shall notify the State of actual or potential conflicts of interest before performing QA/QC reviews.

- 12. The Technical Expert shall not perform QA/QC review on documents nor documentation if they have a conflict with the following:
 - a. Technical Expert's employees who may have a direct or indirect interest, including financial and other interests, or engage in a business transaction or professional activity, or incur any obligation of any nature that is in substantial conflict with the proper discharge of the employee's duties in the public interest.
 - b. Technical Expert's firm or subcontractor prepared the document or documentation.
 - c. Technical Expert's employees were former TxDOT employees who worked on the particular project or matter of the document while employed at TxDOT.
 - d. Technical Expert's employees which may have a monetary conflict of interest with the project which the document or documentation is written on.
 - e. Technical Expert's employees may have a potential conflict if the employee has family members or close relationships with preparers of documents by (TxDOT employees or other consultants) where there may be a conflict of interest in the review of the document.

V. SERVICES TO BE PERFORMED BY THE TECHNICAL EXPERT

1. Environmental Assessment (EA) Content and Format

- a. The EA shall meet the requirements of 23 CFR §771.119 and Title 43, TAC, Part 1, Chapter 2. The EA content shall be in sufficient detail to meet regulatory requirements for legal sufficiency, and current TxDOT guidance/Environmental Compliance Toolkit.
- b. Exhibits to be included in reports or EAs shall not exceed 11" by 17," and shall be in color. Text pages shall be 8.5" by 11." Exhibits and text in reports or EAs shall be neat and reproducible via photocopying without loss of legibility. Except as noted in specifications in this Attachment, EAs shall be reproduced on plain white paper unless otherwise approved in advance by the State in the work authorization.
- c. The EA shall use good quality maps and exhibits, and shall incorporate by reference and summarize background data and technical analyses to support the concise discussions of the alternatives and their impacts.
- d. The format will be provided by ENV.

2. Section 4(f) Evaluations

- a. The 4(f) Section of the environmental document shall document all data necessary to address to the satisfaction of FHWA/TxDOT use of Section 4(f) properties in accordance with 23 CFR §774, and current TxDOT guidance/Environmental Compliance Toolkit.
- b. Engineering analyses required for 4(f) determinations will be provided for through a 3rd party contract or work performed by the State.
- c. The Section 4(f) Evaluation shall conform to the appropriate TxDOT Section 4(f) checklist for exceptions, *de minimus*, and programmatic evaluations. For individual Section 4(f) Evaluations, the following outline is to be used:
 - 1) Proposed Project.
 - Need and Purpose for the Project. This is a detailed discussion with the needs of the project divided into the following three categories, as applicable: structural deficiencies, functional inadequacies, and geometric deficiencies
 - 3) Objectives of the Project.
 - 4) Description of the 4(f) Properties.
 - 5) Prediction of Effects of Each Alternative on the 4(f) Properties.
 - 6) Do Nothing (No build alternative).
 - 7) Improve the Existing Facility Without Using 4(f) Properties.
 - Build an Improved Facility on New Location Without Using 4(f) Properties.
 - 9) Describe Project Alternatives that Use 4(f) Properties with an alternatives matrix.
 - 10) Measures to Minimize Harm.
 - 11) Coordination with Relevant Public Agencies and Private Organizations (A letter from the officials with jurisdiction or property owner must be included as an attachment to the 4(f) document).

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- 12) Conclusion Summary.
- 13) For Section 4(f) Evaluations, the appropriate checklist must be completed and attached.
- d. Report states the reason a Section 4(f) evaluation is being completed and references project listed in Statewide Transportation Improvement Program (STIP), including date of STIP.
- e. Report discusses the presence of any other Section 4(f) properties located in the project area.
- f. All Section 4(f) evaluations shall meet the requirements set forth in the State's Environmental Compliance Toolkits.

3. Section 6(f) Evaluation

Determine if Land and Water Conservation Fund Act funds were used for the Section 4(f) property in accordance with the regulatory requirements and TPWD guidelines.

4. Re-evaluation

Re-evaluations will be done in accordance with 23 CFR §771.129. This document must include the project history, addressing the specific changes that have occurred, potential environmental impacts and why (or why not) the CE or FONSI designation remains valid.

All re-evaluation documents shall follow the most current format to be provided by ENV.

5. Public Involvement (23 CFR §771.111)

- a. Perform public involvement activities in accordance with TAC, Title 43, Part 1, Chapter
 2 and 36 CFR §800.2, and current TxDOT guidance/Environmental Compliance
 Toolkit.
- b. Develop a plan for public involvement activities. The plan shall specify all activities to be performed and alternatives to be discussed during public involvement activities. Public involvement activities must be carried out in compliance with EO 13166 and EO 12898. The plan shall also discuss outreach strategies for both the general public and targeted strategies for Environmental Justice and Limited English Proficiency populations.
- c. Compile, maintain and update a mailing list of people, agencies and organizations interested in the Transportation Activity.
- d. Make all arrangements for public meetings and hearings, including the site of the meetings, mailing and publishing notices, preparation of exhibits, provision for taping or transcription of proceedings, and any other arrangements as directed by the State. The Technical Expert shall not hold public meetings or hearings in the absence of State personnel.
- e. Submit all legal notices to the State for review no less than two weeks prior to publication.
- f. Arrange a meeting with the State to review all exhibits and other materials to be used prior to public meetings or hearings.
- g. Obtain the State's approval for all legal notices, exhibits, and other materials.
- h. Provide personnel to staff meetings and hearings, including people to perform registration, make presentations, and answer questions. Staffing levels of personnel to be provided shall be identified in the work authorization.

- i. Develop and submit to the State a written summary of the public meeting including when the meeting was conducted, where the meeting was held and who was in attendance. The summary shall also include the comments received and responses to comments, as well as modifications, if any, to the project resulting from comments received. Summary of public involvement shall be included in the environmental document.
- j. Develop and submit to the State a comment and response report, summary and analysis, required certification, verbatim public hearing transcript and other information necessary to evaluate and disseminate information from public hearings. The comment and response report, summary and analysis, and other information shall be sufficiently detailed to provide a full administrative record of questions asked, issues and concerns raised, and responses given during the hearing. The comment and response report, summary and analysis, or other information shall be sufficiently detailed to provide a basis for incorporating all information gathered at public hearings into the environmental document. The final public hearing documentation submitted to the State shall include: Summary and Analysis; Comment and Response Report (including copies of all written comments received and response letters); verbatim transcript and certification signed by the District Engineer.
- k. Develop and send acknowledgement letters and/or response letters to commenter's at public meetings or hearings. The Technical Expert shall not distribute acknowledgement or response letters without prior approval by the State.
- Develop, publish, and distribute a newsletter on the Transportation Activity, including compiling and maintaining a mailing list. The Technical Expert shall not distribute the newsletter without prior approval by the State.
- m. Develop and maintain a web site to disseminate information on the Transportation Activity and to gather comments from the public. The web site shall be approved by the State prior to making it available to the public over the internet. All updates to the web site must be approved by the State prior to posting.

6. Community Impact Assessment

Perform Community Impact Assessments (including relocations and/or disproportionate impacts) in accordance with Executive Order 12898.

- a. Compile analysis to meet requirements of TA 6640.8A. Analysis must conform to applicable current TxDOT and FHWA guidance.
- b. Process for Community Impact Assessment should follow Community Impact Assessment: A Quick Reference for Transportation.
- c. Identify and evaluate the social and economic impacts of a Transportation Activity.
- d. Use appropriate data sources, such as the United States Census, windshield surveys, maps, public involvement, Multiple Listing Service, and aerial photographs to determine the potential for social impacts. Potential social impacts to be documented include:
 - 1.) Demographics (population, ethnic/racial distribution, income) based on the most recent census or projections. Census data needs to be presented at the lowest scale available, which for race and ethnicity is the block level. Census data should be compared to the next higher level of aggregation (i.e. block to block group) instead of to the city or the county as a whole.

Income data and language data are not available at the block level, and so for these issues, block groups should be compared to census tracts. The document should present data for each block/block group in the study area. Data should be presented in tabular format, including percentages to make data more useable for comparison purposes.

- 2.) Estimate the numbers, types of occupancy (owner/tenant) and sizes (number of employees) of businesses and farms to be displaced and describe each. Discuss impacts to the community if businesses are unable to relocate within their current service area. Identify sites available in the area to which the affected business may relocate, the likelihood of such relocations, and potential impact on individual businesses and farms caused by displacement or by proximity of the proposed highway if not displaced.
- 3.) Other populations (disabled, elderly).
- 4.) Land uses in the project area (community services, schools, etc.). Provide acreage estimates for each identified land use. Document identifies current development trends in the area and the local government plans and policies on land use and growth in the area which will be impacted by the proposed project. Document identifies if proposed Transportation Activity conforms to plans and policies.
- 5.) Mobility (pedestrian, bicycle, transit, cars, rail).
- 6.) Safety (traffic and potential for crime).
- 7.) Identify other potential impacts identified in studies of social impacts.
- 8.) Identify the property owners and tenants adjacent to a roadway project.
- 9.) Identify all potential displacements.
- 10.) Identify tenure of properties to be displaced (whether owned or rented).
- 11.) Identify potential replacement housing or other replacement sites using Multiple Listing Service for current market data. If Multiple Listing Service is not available, similar source shall be used, provide the rationale for selecting this source is provided in the document. Compare value of property to be displaced with price of available properties of similar size (number of bedrooms) in the area. Comparison between displaced housing and available housing should be provided by tenure. If the preferred alternative has been identified, identification of replacement housing shall be performed only for the preferred alternative. If existing housing inventory is insufficient, does not meet relocation standards, or is not within the financial capabilities of the displaced, a commitment to last resort housing should be included in the document.
- 12.) Identify changes in neighborhood and community cohesion for the various social groups identified.
- 13.) Identify impacts on school districts, recreational areas, places of worship, businesses, police and fire protection, and other community services.
- 14.) Identify the racial, ethnic and income level of affected individuals and communities, in order to determine any disproportionate impacts on any minority or low-income individuals or communities.

- 15.) Use public contact and public involvement to gather information from individuals and communities regarding social impacts of Transportation Activities. This includes fulfilling the requirements of Executive Order 13166 (Improving Access to Services for Persons with Limited English Proficiency).
- 16.) Identify possible mitigation measures to avoid or minimize any adverse impacts to the community or specific populations within the project area.
- 17.) Estimate losses and gains to tax revenues due to the location of Transportation Activities.
- 18.) Identify and review subdivision plats, current land uses and anticipated land uses by windshield surveys or other type of surveys.
- 19.) Evaluate travel modes and patterns in a study area, in order to determine any impacts a Transportation Activity may have on access to homes, businesses and community services. Use predictive models, observation, and/or public contact to determine travel modes and patterns. Identify potential changes in travel patterns due to Transportation Activities.
- 20.) Identify and evaluate the potential for impacts to disabled and elderly individuals and populations. Use the United States Census and public contact to determine how Transportation Activities may impact these individuals and populations.
- 21.) Identify whether the project involves a pricing component. If a pricing component is involved, the document shall follow current TxDOT environmental guidance for toll projects.

7. Environmental Justice

- a. Perform an environmental justice analysis. Studies shall fulfill the requirements of Executive Order 12898. Document shall provide a definition of Environmental Justice and describe the Executive Order.
- Identify Environmental Justice communities within the study area.
- c. Determine if the project would have disproportionately high and adverse impacts on Environmental Justice communities. All impacts identified in the Community Impact Assessment and other relevant studies (i.e. noise analysis) should be considered to determine if the impacts disproportionately affect environmental justice communities.
- d. Identify possible mitigation measures to avoid or minimize any adverse impacts to the environmental justice population within the project area.

8. Limited English Proficiency

- a. Demonstrate compliance in environmental documents with Executive Order 13166. Compliance is generally dependent on public involvement activities.
- b. Provide a definition of Limited English Proficiency and describe the Executive Order in the document.
- Identify populations with Limited English Proficiency and the language(s) spoken.
 Document must list specific commitments to provide access to Limited English Proficiency individuals.

9. Indirect Impacts Analysis

Perform analysis to fulfill the requirements of NEPA and the most current version of TxDOT's Guidance on Preparing Indirect and Cumulative Impact Analyses. The extent of the analysis will be determined in the work authorization.

10. Cumulative Impacts Analysis

Perform analysis to fulfill the requirements of NEPA and the most current version of TxDOT's Guidance on Preparing Indirect and Cumulative Impact Analyses. The determination of which resources to include in the analysis is dependent upon the results of the analyses of direct and indirect impacts.

11. Air Quality Studies

Prepare the air quality section in accordance with the current version of the Air Quality Handbook and Air Quality Toolkit. If the Air Quality Handbook requires it, the document must contain the following air quality elements in the format prescribed in the Air Quality Toolkit:

- a. Provide the following information for attainment or unclassifiable counties in the environmental document:
 - 1) A statement indicating that the county or counties where the project is located is in attainment or unclassifiable or all National Ambient Air Quality Standards.
- b. Provide the following information for nonattainment areas or counties in the environmental document:
 - A statement providing the name of the nonattainment area, details on the nonattainment pollutants and nonattainment classification of the county or counties where the project is located.
 - 2) A statement indicating whether or not the project has been included in, and is consistent with, the current conforming metropolitan transportation plan (MTP). If it is not consistent with the MTP, contact the State for further instructions. Either bridging language will need to be used until the plan is revised, or the project will need to be revised.
- c. For conformity non-exempt projects in nonattainment areas or counties, prepare and submit a Conformity Report Form. Submit to the ENV air specialist for approval and coordination with FHWA.
- d. A disclosure that the project came from the MPO's congestion management process for the county or counties where the project is located and a list of committed projects to reduce traffic congestion in those counties.
- e. Perform computer modeling of estimated time to completion (ETC) year and design year peak-hour carbon monoxide concentrations at project right-of-way lines using computer models, traffic data, and project plan maps provided by the State for projects that require a carbon monoxide Traffic Air Quality Analysis (TAQA). Compare the modeled current and future year peak-hour carbon monoxide concentrations to the one hour and eight

hour carbon monoxide National Ambient Air Quality Standards. Include documentation of the methods and specifications used in modeling and the results of the modeling in the environmental document. This information should include traffic volumes, computer model(s) used, future year carbon monoxide concentrations, and percentages of the National Ambient Air Quality Standards. This analysis requires both emission and dispersion modeling, however, emission rates may be available for specific areas in the Air Quality Toolkit, preventing the need for the emissions modeling. A technical report will be prepared and submitted to the TxDOT ENV air specialist for review prior to incorporation of the analysis summary in the environmental review document.

- f. Perform a Mobile Source Air Toxics (MSAT) analysis and provide documentation in accordance with the current version of the State's Air Quality Handbook, the Air Quality Toolkit, and the latest memorandum from FHWA regarding Interim Guidance Updates on Air Toxic Analysis in NEPA Documents. The analysis may be either qualitative or quantitative. The following are required for a quantitative MSAT analysis:
 - 1) A conference call with the State's District, ENV, MPO with jurisdiction, FHWA (only for non-NEPA assigned projects), and the Engineer's Technical Expert.
 - 2) The Engineer will take meeting minutes which will include the specifics for performing the quantitative MSAT analysis.
 - 3) The analysis will be performed as agreed upon in the conference call and follow the most recent State and FHWA guidelines.
 - 4) A technical report will be prepared and submitted to the TxDOT ENV air specialist for review prior to incorporation of the analysis summary in the environmental review document.
- g. Perform a CO/PM hotspot analysis (only applies to CO/PM nonattainment and maintenance areas) and provide documentation in accordance with the current version of the State's Air Quality Handbook, the Air Quality Toolkit, EPA conformity rule (40 CFR §93), and EPA hotspot guidance documents. If a CO/PM hotspot may be applicable, the conformity consultation process will need to be initiated by the District and MPO. The analysis will be performed as agreed upon in the conference call with the Consultation Partners. Any decisions by the consultation partners are subject to public involvement, which can and should be combined with NEPA public involvement whenever possible. A technical report will be prepared and submitted to the TxDOT ENV air specialist and FHWA for review prior to incorporation of the analysis summary in the environmental review document.
- h. Complete air quality cumulative and indirect impacts analysis as specified in the Cumulative and Indirect Impacts Analysis section of this attachment and include a discussion of the analysis in the environmental document. Contact the State if further guidance is needed.
- i. A disclosure of potential construction emissions and any proposed mitigation.

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Respond to public comments received on air quality issues.

12. Traffic Noise Studies

- a. Perform a traffic noise analysis in accordance with the current version of TxDOT's (FHWA approved) "Guidelines for Analysis and Abatement of Roadway Traffic Noise." Noise analyses shall be performed for all alternatives under detailed study.
- b. Contact the State to request a copy of the current version of the guidelines. The State shall provide a copy of the guidelines upon request. Upon request, the State shall provide the Technical Expert with existing and predicted traffic data and, when available, aerial photography.
- c. By project location site visit, Technical Expert will identify adjacent, land use development and photo document representative receivers that might be impacted by roadway traffic noise and may benefit from feasible and reasonable noise abatement. Similarly, permitted development adjacent to the roadway will be identified.
- d. Determine existing and predicted noise levels for representative receivers, as follows:
 - For transportation activities on new location, take field measurements of existing noise levels. Field measurements shall be accomplished with sound meters that meet or exceed ANSI S1.4-1983, Type 2. Predicted (future) noise levels will be determined by computer modeling.
 - 2) For transportation activities not on new location, perform computer modeling of existing noise levels and predicted (future) noise levels.
 - 3) Computer modeling shall be accomplished with the latest FHWA approved Traffic Noise Model (TNM) software program which must be purchased at the Technical Expert's expense from the software distributor.
- e. Identify impacted receivers in accordance with the absolute and relative impact criteria.
- f. Consider and evaluate all required noise abatement measures for impacted receivers in accordance with the feasible and reasonable criteria.
- g. Propose noise abatement measures that are both feasible and reasonable.
- h. Determine predicted noise impact contours for transportation activities where there is adjacent undeveloped property where residential development is likely to occur in the near future.

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13. Water Quality Studies

- a. Address all water quality studies in accordance with Section 303(d) of the Clean Water Act as administered by TCEQ.
- b. Identify if the project will discharge to listed or threatened waters. List the segment number and name.
- c. Identify if the project will discharge to a water body that is within five miles upstream of listed or threatened waters.
- d. Identify the pollutant(s) for which the water body is listed.
- e. Identify if the project could discharge the pollutant identified in (d) above. If yes, discuss
 measures that will be taken to prevent or reduce the likelihood of such a
 discharge.
- f. Identify if the project will discharge the constituent of concern to a water body for which there is a Total Maximum Daily Load (TMDL) and, if so, describe how the discharges will be consistent with the TMDL.
- g. Discuss the Best Management Practices that will be used-particularly at the discharge point to the water body to meet other water quality regulations, such as vegetative swales, silt fencing, compliance with TPDES, etc.

14. Determining Impacts to Waters of the United States, including Wetlands

- a. Identify all waters within the boundaries of the project area.
- b. Make a preliminary determination of USACE jurisdiction. Restrict the level of effort to identification without formal delineation.
- Delineate waters of the United States, including wetlands, when identified in a work authorization.
 - 1) Provide documentation which shall include all field work and compilation of field documentation for wetland delineations. Wetland delineations shall be performed in accordance with the current USACE Wetlands Delineation Manual (Technical Report Y-87-1) and, if appropriate, the Great Plains, Arid West, or Atlantic and Gulf Coastal Plain Supplement to Technical Report Y-87-1. Employ functional assessment methods as required by appropriate USACE District and anticipated mitigation requirements.
 - 2) Stake wetland boundaries in the field.
 - 3) Map the boundaries of the waters of the United States with the global positioning system per guidance from the USACE-Galveston.
- d. When required, the State will provide a land survey of wetland boundaries through a third party contract or work performed by the State.

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- e. When the environmental service is to apply for a permit, the permit and supporting documentation shall be the report and deliverable.
- f. Draft and Final Report.
 - 1) Produce a draft and final report of wetland determinations and delineations. The draft report will be submitted to the State for review and approval by the State and USACE. In the final report, address State and USACE comments from the draft report. The revised final report shall be delivered to the State within 30 days of receipt of comments from the State or USACE, or as otherwise stated in the work authorization.
 - The location of all sites, cities, villages, highways, rivers and other features or place names discussed in the text and situated in the project locale shall be shown on the appropriate figure. All tables, figures and maps shall have a number, title, appropriate explanatory note and a source reference. In addition, where applicable, figures and all maps shall display a title, north arrow, scale, legend and source reference.

The report shall be in the following format:

- 1) Introduction
 - a) Who authorized the wetland delineation.
 - b) Why the wetland delineation is being done.
 - c) Location of site (USGS 7.5' Map).
 - d) Date of field visit(s).
 - e) Identification of delineators.
- 2) Methods
 - a) Brief description of the method used.
 - b) State any modification of the method.
 - c) Source of existing information.
 - 3) Results and Discussion
 - a) Description of the site.
 - b) Topography of the site.
 - c) Plant communities of the site.

- d) Soil types identified on the site.
- e) Hydrology information of the site.
- f) Existing wetland mapping (e.g., NWI/state/local).

4) Findings

- a) Types of wetlands identified on the site (e.g., Cowardin, et al. 1979).
 - i. Description of wetlands identified.
 - ii. Locations of wetlands.
 - iii. Area of wetlands (in acres).
 - iv. Contrast with non-wetland.
 - v. How was the wetland boundary chosen (e.g., feature on landscape).
- b) Types of other waters of the United States identified on the site.
 - i. Description of the other waters of the United States.
 - ii. Locations of the other waters of the United States.
 - iii. Area of the other waters of the United States.
 - iv. Contrast with non-wetlands.
 - v. How was the other water of the United States boundary chosen (e.g., feature on landscape).

5) Conclusion.

- a) Table summary of total area and types of wetlands and other regulated waters.
- b) A map showing each location where a Wetland Data Form was completed.
- c) Statement regarding the need for permits.
- d) Caution that final authority rest with the appropriate agencies.

Literature Cited.

e) Appendix (Routine Wetland Determination Data Forms and, if required, Atypical Situation Data Forms).

15. Wild and Scenic Rivers

Determine the Transportation Activity's impacts on rivers in the National Wild and Scenic River System. If a river in the National Wild and Scenic River System is located in the study area or will be affected by the Transportation Activity, identify and perform coordination with the agency or regulatory agencies with jurisdiction.

- a. Include information on the management plan for a listed river, affected land use, and any necessary Section 4(f) coordination.
- b. Document coordination with the agency or agencies with jurisdiction.
- c. Identify potential adverse effects on the natural, cultural, and recreational values of rivers listed on the Nationwide River Inventory (NRI) or study river.
- d. Review the Transportation Activity's adverse effects on alteration of free flowing nature of river, alteration of the setting, or deterioration of water quality.
- e. Address listed adverse effects and document consultation on avoiding or mitigating the impacts with the managing agency.
- f. Identify measures proposed to avoid or mitigate such impacts.
- g. Fulfill the requirements of 16 USC §§1271-1287.

16. Floodplain Impacts

Determine whether the Transportation Activity has the potential to affect floodplains. Document Trinity River Corridor Development Certificate Regulatory Zone requirements (Dallas and Fort Worth Districts), and International Boundary Water Commission requirements (Transportation Activity within the floodplain of the Rio Grande) if the project is within the area covered by these regulations. Studies for floodplain impacts shall fulfill the requirements of Executive Order 11988 and 23 CFR §650, Subpart A.

- a. Briefly describe the watershed characteristics of the study area in terms of land uses and changes in land use that may affect stream discharge.
- b. Briefly describe the streams in the study area, including evidence of stream migration, down cutting, or aggradations.
- c. Identify the presence and nature (e.g., zone A, zone AE, zone AE with floodway) of any FEMA mapped floodplains. Include the panel number.
- d. Indicate the existence of any significant development associated with the mapped area and identify the jurisdiction responsible for the floodplain.
- e. Identify the locations where an alternative will encroach on the base (100-year) floodplain ("encroachments"), where an alternative will support incompatible floodplain development and the potential impacts of encroachments and floodplain development. This identification should be included in the text and on a map.
- f. Include a list of all jurisdictions having control over floodplains for each alternative.

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- g. Where an encroachment or support of incompatible floodplain development results in impacts, the report shall provide more detailed information on the location, impacts and appropriate mitigation measures. In addition, if any alternative (I) results in a floodplain encroachment or supports incompatible floodplain development having significant impacts, or (2) requires a commitment to a particular structure size or type, the report shall include an evaluation and discussion of practicable alternatives to the structure or to the significant encroachment. The report shall include exhibits which display the alternatives, the base floodplains and, where applicable, the regulatory floodplains.
- h. For each alternative encroaching on a designated or regulatory floodplain, the report shall provide a preliminary indication of whether the encroachment would be consistent with or require a revision to the regulatory floodplain. If the preferred alternative encroaches on a regulatory floodplain, the report shall discuss the consistency of the action with the regulatory floodplain. In addition, the report shall document coordination with FEMA and local or state agencies with jurisdiction indicating that revision would be acceptable or that a revision is not required.
- i. If the preferred alternative includes a floodplain encroachment having significant impacts, the report shall include a finding that it is the only practicable alternative as required by 23 CFR §650, Subpart A. The finding shall refer to Executive Order 11988 and 23 CFR §650, Subpart A. In such cases the report shall document compliance with the Executive Order 11988 requirements and shall be supported by the following information:
 - 1) The reasons why the proposed action must be located in the floodplain;
 - 2) The alternatives considered and why they were not practicable; and
 - 3) A statement indicating whether the action conforms to applicable state or local floodplain protection standards;

17. Coastal Zone Impacts

Determine if the proposed activity complies with Texas' approved coastal management program and will be conducted in a manner consistent with the Texas Coastal Management Program goals and policies as described in 31 TAC §501 and by avoiding and minimizing impacts to coastal natural resource areas. Document consistency with the Coastal Management Program as described in 31 TAC §505.30 and 43 TAC §2.134.

18. Stormwater Permits (Section 402 of the Clean Water Act)

- a. Discuss the need to use the TPDES General Permit, TX 150000. The text will discuss how the project will comply with the terms of the TPDES, including the Stormwater Pollution Prevention Plan.
- b. Discuss the need for Municipal Separate Storm Sewer System notification.

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19. USACE Permits

- a. Section 10 of the Rivers and Harbors Act (33 USC §403). Determine whether the Transportation Activity requires a Section 10 permit and upon approval by the State, prepare and submit permit applications to USACE and obtain the permits.
- b. Section 404 of the Clean Water Act (33 USC §1344). Determine whether the Transportation Activity requires a Section 404 permit (Nationwide or Individual Permit (IP)) and upon approval by the State, prepare and submit permit applications (PCN or individual permit application) to USACE and obtain the permits. PCNs and IPs will be prepared in accordance with current USACE policies and regulations.
- c. If the permit is an Individual Section 404 permit, upon approval by the State, prepare and submit a Tier 1 checklist or a Tier II 401 certification questionnaire / water quality certification documentation to TCEQ and USACE.
- d. Provide the State with documentation (including all original correspondence) of consultation with USACE and TCEQ.
- e. Keep the State informed during the permit coordination process.

20. USCG Section 9 Permit (33 USC §401)

- Determine whether streams or other water bodies crossed by a proposed transportation facility are navigable as defined in the USCG Commandant Publication P16591.3A, "Bridge Permit Application Guide."
- b. Consult with the USCG to obtain Coast Guard concurrence on navigability and the need, if any, for a USCG Bridge Permit.
- c. Provide the State with documentation (including all original correspondence) of consultation with the Coast Guard.
- d. Upon approval by the State, submit permit application and obtain a USCG Bridge Permit for bridges crossing navigable waters. The permit(s) shall be obtained in accordance with the USCG Commandant Publication P16591.3A, "Bridge Permit Application Guide."

21. Water Body Modifications and Wildlife Impacts

Identify water body modifications and impacts to wildlife. Studies shall fulfill the requirements of FHWA Technical Advisory T 6640.8A (1987) and Title 42, TAC, Part 1, Chapter 2.

22. Threatened or Endangered Species

Perform biological services.

- a. Surveys for Rare and Protected Species or Habitat of Rare and Protected Species.
 - Perform surveys of rare and protected species or habitat of rare and protected species. This shall include:
 - a) All species listed by the USFWS as threatened or endangered or proposed for listing as threatened or endangered (50 CFR §§17.11-12),

- b) All species that are candidates for review for listing by USFWS as threatened or endangered (per most recently updated list in Federal Register).
- c) Species listed as threatened or endangered species by the State of Texas Threatened and Endangered Species Listings, TPWD,
- d) Rare species including "Species of Concern" listed by the State of Texas on Texas Parks and Wildlife Department's Annotated County Lists of Rare Species,
- e) Species protected by the Migratory Bird Treaty Act (50 CFR §10.13).
- 2) Examine existing data to determine the likelihood that rare species, protected species, their habitat, or designated critical habitat (per 50 CFR §§17.94-95) could be impacted by the Transportation Activity. Existing data shall include the Element Occurrence Identification (EOID) records of the TPWD Natural Diversity Database, following the Guidelines set forth in the most current version of TPWD's Guidelines for TXNDD Data Analysis in TxDOT Environmental Documents.
- 3) An effect determination pursuant to the Endangered Species Act (ESA) must be included for all federally listed species. A determination of impact must be included for all state-listed and rare species. The determination of effect/impact must be supported by evidence, and may require a detailed assessment. Any technical reports used to support the determination(s) must be referenced and provided to TxDOT.
- 4) Determine whether critical habitat is present in the study area and whether the Transportation Activity will affect that critical habitat.
- 5) Perform species-specific habitat surveys, presence/absence surveys for protected species, or critical habitat (per 50 CFR §§17.94-95) and rare species.
- 6) Surveys to identify potential habitat for rare and protected species shall be conducted by using commonly understood habitat parameters for each protected species. Surveys for the presence or absence of rare and protected species shall be conducted according to protocols adopted by USFWS and TPWD for all protected species for which such protocols have been established.
- 7) Personnel conducting presence/absence surveys for protected species shall hold appropriate USFWS or TPWD permits at the time surveys are performed.
- 8) Presence/absence surveys shall be conducted during the time of the year appropriate for each species. If the Technical Expert believes that a work authorization to conduct a presence/absence survey does not adequately consider timing of the survey, notify the State.
- 9) Furnish the State with Technical Expert's field notes when requested by the State.
- 10) Coordinate between the State and USFWS or TPWD as directed by the State to ensure that proper rules, regulations and policies are followed for biological services. All coordination between the Technical Expert and resource agencies shall be approved in advance by the State.
- b. <u>Habitat Analysis/Characterization of Project Study Area.</u> Perform an analysis/characterization of habitat and habitat impacts for the study area. The habitat analysis should be based on the most current TxDOT/TPWD Memorandum of Understanding With Natural Resources Agencies.

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- c. Analysis of Stream Modifications and Associated Habitats. Provide a habitat impact analysis when modification of a stream channel is included as part of the Transportation Activity where the streambed is being relocated, straightened, altered (deepened or widened), or cleaned as a part of road/bridge construction or as an easement involving drainage improvements.
 - 1) The report on the habitat impact analysis shall describe impacts; both direct and indirect, to the adjacent riparian habitats associated with stream modifications, and shall include:
 - a) A description of existing vegetation that includes all elements listed in this attachment.
 - b) Areal extent of temporary and permanent impacts, in acres, including impacts in temporary or permanent easements outside the State's proposed right of way.
 - c) Type of impacts proposed to affect the channel (e.g., channelization, fill, excavation) and adjacent surfaces (e.g., vegetation clearing for equipment operation).
 - 2) Stream Modification and Associated Habitats Reports shall include:
 - a) Sources for and results of preliminary data collection.
 - b) The name(s) of the person(s) performing the fieldwork,
 - c) Dates of fieldwork.
 - d) Weather conditions at the time of the survey(s),
 - e) Whether the rare and protected species is absent or present,
 - f) Survey protocols or other methods used.
 - g) Analysis of the Transportation Activity's potential to affect the channel,
 - h) Appropriate shapefiles (GIS), 7.5-minute USGS topographic maps, and/or aerial photographs showing all areas surveyed; and,
 - i) Photographs typical of the area(s) surveyed.

23. Invasive Species

Address Executive Order 13112 on Invasive Species as per FHWA guidance.

24. Essential Fish Habitat

Perform Essential Fish Habitat studies. Studies shall fulfill the requirements of 50 CFR §600.920.

- a. Determine if Essential Fish Habitat is present in the project area.
- b. Determine if the project will adversely affect Essential Fish Habitat.
- c. Describe adverse impacts, if any.

25. Beneficial Landscaping

Address Executive Memorandum on Beneficial Landscaping of April 26, 1994, as per FHWA guidance.

26. Farmland Impacts

Determine farmland impacts. Identification of farmland impacts shall be in accordance with the Farmland Protection Policy Act (FPPA) (7 USC §4201 et. seq.) and FHWA guidance on addressing FPPA, which includes determining whether the project is exempt or completion of form AD 1006 or CPA 106 as appropriate.

27. Initial Assessment of Hazardous Materials Impacts

- a. Perform an initial site assessment (ISA) for potential hazardous materials impacts. The ISA shall determine the potential for encountering hazardous materials in the study area, including possible environmental liability, increased handling requirements (e.g. soil or groundwater), and potential construction worker health and safety issues. The Technical Expert shall perform the assessment in accordance with the applicable sections of the State's current "Hazardous Materials in Project Development Guidance" or more recent TxDOT guidance. The Technical Expert is responsible for contacting TxDOT to acquire the latest version of TxDOT's "Hazardous Materials in Project Development Guidance".
- b. Upon the Technical Expert's request, the State shall provide the sections of the State's "Hazardous Materials in Project Development Guidance" or more recent guidance applicable to the ISA. Applicable sections of the guidance are available from the State's Environmental Affairs Division, and include the chapter on advanced project development and environmental documentation, as well as appendices covering the ISA worksheet and environmental documentation.
- c. The Technical Expert shall utilize TxDOT's ISA Technical Report format (most recent version as of the date a work authorization is issued) when completing an initial assessment of hazardous materials impacts. The Technical Expert is responsible for contacting TxDOT to acquire the latest version TxDOT's ISA Technical Report format. The Technical Expert also will use 40 CFR §312 Standards and Practices for All Appropriate Inquiries as a guide for completing the ISA.
- d. Determine the appropriate project-specific level of inquiry for the ISA. Consider preliminary project design and right-of-way requirements, including project excavation requirements, anticipated right of way acquisition, and the demolition or modification of structures.
- e. The work authorization shall identify the specific activities to be performed during the ISA for hazardous materials impacts.
- f. Produce and submit to the State a report on the ISA for hazardous materials. The format and content of the report shall be identified in the work authorization. The report shall include, when specified in a work authorization, a completed TxDOT' ISA Technical Report Form (most recent version as of the date of the work authorization is issued). The Technical Expert is responsible for contacting TxDOT to acquire the latest version of TxDOT's ISA Technical Report Form.
- g. The report shall include, when applicable, full copies of list search reports, including maps depicting locations, copies of agency file information, recommendations, and any other supporting information gathered by the technical expert. When specified in a work authorization, the report also shall include a concise discussion of known or potential hazardous materials impacts suitable for inclusion in the environmental document. The discussion of hazardous materials impacts shall include, when applicable:

- including sufficient information to show that the study area for the Transportation Activity was adequately investigated for known or potential hazardous material contamination.
- A concise description of the scope of the hazardous materials ISA, disclosure of any limitations of the assessment, and a statement indicating who performed the assessment.
- 3) A concise summary of the findings of the assessment for each alternative considered. The analysis for multiple alternatives should compare the regulatory status, type of contamination, and potential involvement during construction, rather than just the total number of regulated sites for each alternative.
- 4) A discussion of any commitments to perform further investigation for suspect areas, and/or justification for postponement of further investigation.
- 5) A summary of efforts to be employed by the State to avoid or minimize involvement with known or suspected hazardous material contamination sites during construction, and/or justification for not avoiding contaminated sites within the preferred alternative or corridor alignment.
- Disclosure of known or suspected hazardous material contamination or waste sites that are anticipated to be encountered during construction or acquired for right of way The location of known or potential waste sites should be clearly marked on a map showing their relationship to the alternatives under consideration. A discussion of any required or recommended special considerations, contingencies or provisions to handle known or suspected hazardous material contamination during right-of-way negotiation and acquisition, property management, design and/or construction.
- 7) A summary of any early coordination or consultation conducted with the regulatory agencies, local entities or property owners.
- 8) A discussion of any further hazardous materials related coordination with, and approvals or permits required from, the regulatory agencies or other entities.

28. Archeological Background Studies

- a. An Archeological Background Study shall be sufficient to satisfy the current Environmental Compliance Toolkit for Background Studies, available from the State.
 - b. The Technical Expert shall undertake the following activities.
 - Review site files at the TARL and THC to determine whether previously recorded archeological sites are present in the area to be documented. Review of the Texas Archeological Sites Atlas shall be used for THC file review unless otherwise approved by the State.
 - 2) If sites are present, consult relevant site forms and archeological reports to determine the characteristics of the sites.
 - 3) Produce a clearly reproducible map, based on USGS 7.5' topographic

maps, indicating areas where recorded archeological sites are present.

- 4) Review NRCS soil maps, BEG geological maps, historic maps, aerial photographs, planning documents, and USGS topographic maps to determine the general characteristics of the study area with respect to the identification of areas where preservation of archeological historic properties and SALs is likely and unlikely.
- c. Background studies comprise a review of existing data, including but not limited to the Texas Archeological Sites Atlas, geologic maps, soil maps, aerial photographs, and historic maps. Based on this review, the Technical Expert shall identify areas that require field investigation to evaluate the project's effects on archeological resources and areas in which the proposed project would have no effect on archeological resources. The Background Study shall be produced by a professional archeologist as defined in 13 TAC §26.5(52)(B).

29. Archeological Surveys

- a. An Archeological Survey (Reconnaissance or Intensive) shall be sufficient to satisfy the current Environmental Compliance Toolkit for Archeological Survey Reports, available from the State. The Technical Expert shall undertake the following activities.
 - Archeological surveys shall be performed for specific proposed transportation activities. Perform archeological surveys under a Texas Antiquities Permit issued by THC and signed by a State professional archeologist (Title 13, TAC, Part 2, Chapter 26).
 - 2) Perform surveys, reporting, and documentation to satisfy the National Historic Preservation Act, Section 106 and Antiquities Code requirements for determining whether archeological sites are present in the project area, and whether test excavations or a higher level of archeological work is needed.
 - 3) An archeological background study shall be performed prior to field work. If the Technical Expert has already performed an archeological background study or has been provided with a background study by the State, a new study will not be required.
 - 4) A physical inspection of the project area.
 - 5) Documentation of all conditions affecting the potential integrity of archeological deposits in accordance with regulations 36 CFR §60.4 governing eligibility for inclusion in the National Register of Historic Places and regulations TAC, Title 13, Part 2, Chapter 26.8, governing evaluation of archeological sites for designation as SALs.
 - 6) Evaluation of the potential for intact archeological deposits to be present in the proposed project area.
 - 7) Photo-documentation of evidence supporting a recommendation that deposits in the project area do or do not have sufficient integrity for the preservation of eligible sites. Photo-documentation shall provide a representative record of all relevant impacts reducing the integrity of potential archeological deposits in the project area.
 - 8) Surveys will be done in accordance with THC survey standards, unless a different level of effort can be explicitly justified. Eligibility test

- excavations and data recovery excavations will be authorized at the sole discretion of the State and performed only under a permit specifically issued for that purpose.
- 9) The State encourages the use of mechanically excavated trenches as a reliable site prospection tool during intensive surveys. All trenches excavated for prospection shall be documented in sufficient detail to assure satisfaction of the National Historic Preservation Act, Section 106 and Antiquities Code information needs.
- 10) Items for curation must be prepared in accordance with the most current standards published. The Technical Expert will contact ENV's Archeological Studies Section for a request for housing before sending items to the certified curation facility.
- b. Archeological Reconnaissance Surveys The Technical Expert shall conduct a Reconnaissance Survey as defined in 13 TAC §26.5(57) and 13 TAC §26.20(1). The Technical Expert shall submit a permit application for a Texas Antiquities Permit and a report on the work conducted under the permit. Permit applications for the conduct of an Archeological Reconnaissance Survey shall follow the current Environmental Compliance Toolkit for Individual Antiquities Permit Applications, which is available from the State. The content for Archeological Reconnaissance Survey reports shall follow the current Environmental Compliance Toolkit for Archeological Survey Reports, which is available from the State. The draft and final report shall also fulfill the reporting requirements for the Texas Antiquities Permit.
- c. Archeological Intensive Survey The Technical Expert shall conduct an Intensive Survey as defined in 13 TAC §26.5(35) and 13 TAC §26.20(2). The Technical Expert shall submit a permit application for a Texas Antiquities Permit and a report on the work conducted under the permit. Permit applications for the conduct of an Archeological Intensive Survey shall follow the current Environmental Compliance Toolkit for Individual Antiquities Permit Applications, which is available from the State. The content for Archeological Intensive Survey reports shall follow the current Environmental Compliance Toolkit for Archeological Survey Reports, which is available from the State. The draft and final report shall also fulfill the reporting requirements for the Texas Antiquities Permit.
- d. General Specifications for Archeological Reconnaissance and Intensive Survey Reports.
 - All documentation not submitted for curation shall be submitted to the State.
 - Final survey reports shall be reproduced on archival quality paper. One printed copy of each site form shall be submitted on archival quality paper.
 - 3) Surveys shall fully record all archeological sites present in the project area, to the extent feasible within the scope of a survey.

- 4) All tables, figures, and maps shall have a number, title, appropriate explanatory note, and a source reference. In addition, where applicable, a north arrow, a scale, and a key shall be displayed. All sections of USGS 7.5' quad sheets shall indicate the name of the sheet.
- 5) All bibliographic references in reports shall conform to the *American*Antiquity style guide.
- 6) Maps and figures for all reports and attachments shall be produced to minimize generation loss and shall be suitable for clear reproduction. Unless necessary, maps and figures shall be 8.5" x 11" pages. Continuation sheets for maps and figures should be used where reduction results in loss of legibility.

30. Historic Resource Identification, Evaluation and Documentation Services

- a. The Technical Expert shall perform non-archeological historic-age resource studies related to compliance with Section 106 and Section 110 of the NHPA (36 CFR §800). Such studies include, but are not limited to non-archeological historic-age resource surveys, research and documentation efforts leading to historic context statements, NRHP nomination-level property documentation, HABS/HAER documents, and other mitigation activities such as creating, managing or updating inventories of historic-age properties. Identification, evaluation and documentation tasks shall be completed in accordance with the provisions of the Archeology and Preservation: Secretary of the Interior's Standards and Guidelines (48 FR Parts 44716 et seq. and requirements used by those of the National Park Service, and previously published in 36 CFR Part 61 (SOI Standards), and all TxDOT Environmental Compliance Toolkits.
- b. The deliverables shall summarize the methods used for the historic resources studies, and shall summarize the results achieved. Each historic resources study shall have a deliverable. The summary of results shall be sufficiently detailed to provide satisfactory basis for thorough review by the State, FHWA, SHPO/THC and consulting parties. All deliverables shall be in sufficient detail to meet regulatory requirements for legal sufficiency. All deliverables shall be written to be understood by the public and must be in accordance with the TxDOT On-Line Environmental Manual and all TxDOT Environmental Compliance Toolkits.
- c. Historic resource studies shall be performed and documented at sufficient levels to satisfy THC requirements for determining the presence of and documenting historically significant properties in the project APE in accordance with 36 CFR §60 and 43 TAC §§2.4-2.51 and TxDOT Environmental Compliance Toolkit-compliant. All reports shall include the names and tasks performed of all technical experts associated with the project. Performance of non-archeological historic-age resource studies shall include the following tasks as specified in a work authorization. Deliverables shall be transmitted to the State in electronic and/or paper formats and meet the requirements set for in the State's Environmental Compliance Toolkits. The Technical Expert shall revise all deliverables to reflect comments by the State and THC. Deliverables shall be revised pursuant to the State's errors and omissions policy.

31. Reconnaissance Survey for Historic Resources

Reconnaissance Survey for Non-Archeological Historic-Age Resources

- a. The Technical Expert shall use TxDOT's Report for Historical Studies Survey template.
- b. In consultation with the State, the Technical Expert shall determine the APE and the study limits of the survey area, conduct a literature review appropriate to the project area and its historic-age resources, and prepare a research design for a reconnaissance survey for non-archeological historic-age resources. The research design shall provide a succinct summary of the literature review results including known historic resources and results of public involvement tasks, clear descriptions of identification, evaluation and documentation tasks required, and associated budget figures and production schedules. The Technical Expert shall use the Historical Studies Research Design template. The Technical Expert shall submit an electronic format copy of the research design to the State. The State assumes responsibility for transmitting the research design to the THC, as applicable under the PA-TU, and transmitting THC comments to the Technical Expert.
- c. The Technical Expert shall conduct a reconnaissance survey conforming to the requirements set for in the State's Environmental Compliance Toolkits. The reconnaissance survey and fieldwork shall not be implemented without prior approval of the research design by the State and THC. In addition prior to reconnaissance survey, the technical expert shall ensure that efforts have been made by the appropriate project officials to obtain right-of-entry (ROE) to properties in the study area that have the potential for historic properties if applicable. Each historic-age resource (defined in accordance with 36 CFR §60 as a building, structure, object, historic district or non-archeological site at least 45 years old at the time of letting) in the APE shall be documented to the standards set forth in the State's Environmental Compliance Toolkit for Non-Archaeological Reconnaissance Survey.

32. Intensive Survey for Historic Resources

Intensive Survey of Non-Archeological Historic-age Resources

- a. The Technical Expert shall use TxDOT's Report for Historical Studies Survey template.
- b. In consultation with the State, the Technical Expert shall determine the APE and the study limits of the survey area, conduct a literature review appropriate to the project area and its historic-age resources, and prepare a research design for an intensive survey for non-archeological historic-age resources. The research design shall provide a succinct summary of the literature review results including known historic resources and results of public involvement tasks, clear descriptions of identification, evaluation and documentation tasks required, and associated budget figures and production schedules. The Technical Expert shall use the Historical Studies Research Design template. The Technical Expert shall submit an electronic format copy of the research design to the State that meets the standards set forth in the State's Environmental Compliance Toolkit for Research Designs. The State assumes responsibility for transmitting the research design to the THC, as applicable under the PA-TU, and transmitting THC comments to the Technical Expert.

c. The Technical Expert shall conduct an intensive survey conforming to the requirements set for in the State's Environmental Compliance Toolkits. The intensive survey shall not be implemented without prior approval of the research design by the State and THC. In addition prior to intensive survey, the technical expert shall ensure that efforts have been made by the appropriate project officials to obtain right-of-entry (ROE) to properties in the study area that have the potential for historic properties if applicable. Each historic-age resource (defined in accordance with 36 CFR §60 as a building, structure, object, historic district or non-archeological site at least 45 years old at the time of letting) in the APE shall be documented to the standards set forth in the State's Environmental Compliance Toolkit for Non-Archaeological Intensive Survey.

33. Reference Documents

The following reference documents are available on the internet at http://www.txdot.gov/txdot_library/consultants_contractors/publications/environmental_resources.h tm

- a. FHWA "Guidance on Purpose and Need" (July 2003)
- b. TxDOT "Guidance on Purpose and Need" (July 2001)
- c. Programmatic Section 4(f) Checklists
- d. FHWA's "Guidance for Determining *De Minimis* Impacts to Section 4(f) Resources" (December 2005)

34. Training Support

Assist in preparation of training documentation for training related to environmental services for Transportation Activities under 23 CFR §771, Title 43, TAC, and other statutes and regulations related to compliance with federal and state environmental standards.

35. Other Support Services

Provide support services including, but not limited to, reviewing NEPA documentation for legal sufficiency, providing reviews of reports of environmental services, managing environmental data, and other tasks related to completing environmental review of the State's transportation projects.

Attachment B-1

Qualifications of Personnel

The State and the Technical Expert acknowledge that the qualifications below establish only minimum levels of qualification that may not be appropriate for all projects. The State reserves the sole right to approve all staff performing services under work authorizations issued under this contract.

General Staffing Guidance

Supervisory Position Personnel and Qualifications **Task Descriptions** Project Manager - The Project Manager be employed by Project management the Technical Expert and shall be an expert in applying the Professional head of the team NEPA process to transportation projects. The Project Manager shall have project experience in implementing Direct the professional staff and manage the contract the NEPA process for five (5) transportation or nontransportation projects within the last eight (8) years. Provide project oversight to keep Project experience shall have included experience actually project on schedule and under budget managing and directing NEPA implementation or Prepare budget, schedule of work, and administering a contract for transportation activities, not approve work authorization managing an agency or organization performing such activities. To count toward qualifications, NEPA document Review and approve reports and review or direct supervision of NEPA implementation shall response actions before submittal to have been the primary job function and shall have been **TxDOT** performed as an in-house employee (not contractor or Data review and analysis subcontractor) of an institution, firm, or agency subject to NEPA compliance. The Project Manager shall have either Perform periodic site inspections a bachelor's degree and six (6) years of related Obtain permission for off-site access transportation experience or a master's degree and four when written in a work authorization. (4) years of related transportation experience. Additional experience or education may be considered. **Subject Matter Experts** Field Biologist - The Field Biologist shall be qualified to Conduct field work and data collection perform field investigations and presence/absence surveys for protected species studies and habitat surveys for protected species or species of Data review and analysis concern. The Field Biologist shall have completed and Prepare reports reported three (3) presence/absence or habitat surveys for protected species or species of concern within the last five (5) years. Six (6) surveys are preferred. A minimum of 3

surveys must have been conducted in Texas. Surveys shall have been performed for documentation of species in accordance with a protocol approved by USFWS or TPWD

bachelor's degree (Ph.D preferred) in biology or a related

or following generally accepted methodologies. A

science is required.

Wetland Delineator - The Wetland Delineator shall have personally completed, not supervised, a minimum of four (4) delineations of waters of the United States, including wetlands within the last seven (7) years. All wetland delineations must have been verified or approved by the USACE to be considered complete. At least one of the delineations must have involved GPS data collection. A bachelor's degree in an environmental, biological, or related field, or five (5) years of experience performing wetland delineations plus completion of a one-week USACE, Wetland Training Institute, or equivalent is required.

Professional Archeologist - The Professional

Archeologist shall meet the qualifications for a professional archeologist in the Secretary of the Interior's Professional Qualification Standards for Archeology and Historic Preservation (48 FR §44716) and the Texas Historical Commission's Rules of Practice and Procedure (13 TAC Chapter 26). The Professional Archeologist shall be eligible to obtain a Texas Antiquities Permit. The Professional Archeologist shall have served at a supervisory level on a minimum of five (5) archeological surveys completed in the past seven (7) years for purposes of compliance under the National Historic Preservation Act (16 USC §470), the Antiquities Code of Texas (Title 9, Chapter 191, Texas Natural Resource Code), or an equivalent law in another state. For the purposes of this contract, surveys will be considered complete if the final report has been accepted by the SHPO of Texas or another state. Two (2) of the five (5) archeological surveys must have been for transportation projects within Texas

Professional Historian - The Professional Historian must meet qualifications for historians, architectural historians. or closely related professions such as cultural geographers, preservation planners or landscape historians, as defined in the Secretary of the Interior's Professional Qualification Standards for Archeology and Historic Preservation (48 FR §44716) and the Texas Historical Commission's Rules of Practice and Procedure (13 TAC Chapter 26). The Professional Historian shall have served at a supervisory level on a minimum of three (3) reconnaissance surveys and two (2) intensive surveys completed within the last seven (7) years in accordance with the provisions of the National Historic Preservation Act (16 USC §470) and in compliance with §106 (Title 16. United States Code §470f). For purposes of this contract, surveys will be considered complete if the final report has been accepted by the SHPO of Texas or another state as

Conduct field work

Perform site reconnaissance and mapping

Perform wetland determinations

Perform wetland delineations. according to USACE requirements

Collect data

Perform data review and analysis Prepare reports

Plan and execute research design.

Document operations that use archeological techniques to obtain and record evidence of human activity or prehistory.

Review and approve reports and response actions before submittal to TXDOT.

Coordinate field surveys

Perform archeological surveys and reports

Responsible for site recording, mapping, laboratory processing and cataloging, and artifact analysis

Collect archeological data via Global Positioning System and compile Geographic Information System site maps and databases

Delineate area of potential effects for projects with the potential to affect historic properties.

Conduct field surveys and photographic and written documentation on historic properties located within a project's area of potential effects.

Develop historic contexts that provide an organizational and thematic format for evaluating historic properties.

Determine National Register eligibility for identified historic properties.

Prepare historic documentation on affected properties.

meeting the Secretary of the Interior's Standards for Identification, Documentation and Evaluation (36 CFR Part 61). Two (2) of the five (5) reconnaissance or intensive projects must be transportation projects.

Community Impact Analysis Expert - The Community Impact Analysis Expert shall be an expert in community impact analysis, with experience in land use/farmland issues; relocations; demographic analyses; social impacts; economic impacts; and environmental justice. The expert shall have completed a minimum of five (5) community impact analyses in the past five (5) years. At least three (3) out of five (5) projects must be transportation related. Of the three (3) transportation related projects, two (2) must be for EAs or EISs. Project experience shall entail actually performing community impact analyses, not managing a

contract for such activities or managing an agency or

organization performing such activities

Evaluate the effect of projects on significant properties.

Develop management and preservation plans for historic properties.

Analyze appropriate data for the affected area to determine social and economic impacts.

Identify changes to land use, land values and the local tax base.

Identify impacts to the business environment to include relocations, construction period impacts, accessibility issues and effects to employees and customers.

Estimate the number and type of residential relocations.

Identify the availability of comparable replacement housing.

Identify impacts to community cohesion and the effects to public facilities and services.

Identify and address disproportionately high and adverse health and environmental impacts to minority populations and low-income populations.

Confer with local authorities, civic leaders, social scientists and land planning and development specialists to evaluate the development of transportation projects.

Compile and analyze data on economic, social, and physical factors affecting transportation projects.

Evaluate proposed transportation projects and the potential impacts upon regional and community growth, the local economy, community issues such as employment, public facilities and services and minority and low income populations.

Evaluate cumulative and indirect impacts of a transportation project.

Public Involvement Expert - The Public Involvement Expert Responsible for publishing official shall have planned and implemented a minimum of two (2) notices and implementing other public comment programs and a minimum of two (2) public methods of notification, site selection. identifying and preparing exhibits, and hearings in the past five (5) years (i.e., November 26, 2009 through November 26, 2014) under 43 TAC Chapter 2 and all other tasks required for arranging 23 CFR §771.111(h), including publishing official notices and holding public meetings and and implementing other methods of notification, site hearings. selection, identifying and preparing exhibits, and all other tasks required for arranging and holding the hearing. Planning and implementation of public meetings (including posting official notices, other methods of notification, site selection, identifying and preparing exhibits, and all other tasks required for arranging and holding the meeting) may be substituted for public hearings at a rate of two public meetings for one public hearing. Public meetings or hearings listed to demonstrate experience shall have been held in compliance with state or federal laws or regulations requiring solicitation and consideration of public opinion. Experience shall entail actually planning and implementing public involvement activities and public contact activities, not managing a contract for such activities. Air Quality Expert - The Air Quality Expert shall have Perform air quality modeling/data completed a minimum of three (3) air quality studies, analysis including air modeling, in the past five (5) years for Collect data transportation projects. Prepare reports Traffic Noise Expert - The Traffic Noise Expert shall have Perform traffic noise/data analysis completed a minimum of two (2) traffic noise analyses in Collect data the past five (5) years (EA level or higher) for Prepare reports transportation projects. Geoscientist - The Geoscientist shall be qualified and Conduct geologic assessments Perform Edwards Aguifer impact licensed to practice geosciences within the State of Texas. analysis Perform field work Hazardous Materials Expert. The Hazardous Materials Expert shall be qualified to perform initial site Collect, review, and analyze data assessments. The Hazardous Materials Expert shall have Prepare hazardous materials reports completed a minimum of three (3) initial site assessments in the past five (5) years for transportation projects. The Hazardous Materials Expert shall have one (1) of the following: a Texas issued certification or license (e.g., Professional Geoscientist, Professional Engineer) and three (3) years of relevant full-time work experience; or a Bachelor's degree or higher in science or engineering and five (5) years of relevant full-time work experience; or ten (10) years of relevant full-time work experience. Hydrologist - The Hydrologist shall have completed a Evaluate floodplain impacts minimum of two (2) projects related to the scope in the contract. Evaluate water related issues

Nationwide or Individual Section 404 Permit Preparer/Section 10 Permit Preparer. The Nationwide or Individual Section 404 Permit Preparer/Section 10 Permit Preparer shall have completed a minimum of three (3) Nationwide and Individual Section 404 Permit applications in the past five (5), a minimum of two (2) shall have been Individual Permit applications, which resulted in the successful issuance of the Section 404 Permit by the USACE and a minimum of 1 Section 10 Permit application that resulted in the successful issuance of the Section 10 Permit by the USCG.	Prepare and submit Nationwide and Individual Permits Prepare and submit Section 10 permits
Section 9 Permit Preparer. The Section 9 Permit preparer shall have completed a minimum of one (1) Section 9 Permit application that resulted in the successful issuance of the Section 9 Permit by the USCG	Prepare and submit Section 9 permits
General Positions	•
Archeological Crew Chief or Lab Supervisor - The crew chief or lab supervisor shall have at least a bachelor's degree in Anthropology or a closely related field. A crew chief or lab supervisor shall have a minimum of three (3) years of full time equivalent employment as a professional archeologist with a minimum of one (1) year of full time equivalent employment as a crew chief or lab supervisor. Each additional year of full time equivalent employment as a professional archeologist above the minimum may be substituted for a year of full-time equivalent employment as a crew chief or lab supervisor	Advises and oversees all work performed by archeological technicians
Archeological Technician – An Archeological Technician shall have a bachelor's degree (or higher) in Anthropology or a closely related field and a minimum of six (6) months of full time equivalent employment as an archeologist	Conduct surveys and collect field data related to extensive archaeological fieldwork.
of full time equivalent employment as an archeologist	Conduct comprehensive survey, testing and excavation projects
	Record data on appropriate field site forms or other forms
	Use topographic maps, aerial photographs, GPS units, as well as other maps and tools during fieldwork
	Locate existing reports and conduct data and literature reviews
	Compile existing information and results of field studies into technical reports
	Photograph project sites to record information on cultural resources
	Collect archeological data via GPS and

compile GIS site maps and databases Design and carry-out artifact analyses projects and analytical procedures Process survey and excavation collections, report preparation, and curation Keep appropriate records of the work Ensure that the packaging, labeling, and curation of materials meet acceptable standards Prepare summaries or reports on all work Archival Researcher - Bachelor's degree, plus one (1) -Historical and archival research on three (3) years progressively responsible experience or no historic properties or historic degree and five - seven (5-7) years of related experience archeological sites. required. Graduate level education may be substituted for Development of research designs to experience on a year per year basis. An Archival guide historical research efforts. Researcher shall have completed a minimum of two (2) Development of historic contexts to projects related to the scope in the contract. provide an organized format for further research and evaluation of historic properties and historic archeological sites. Environmental Scientist I - The Environmental Scientist I Field work shall have participated in the writing of a minimum of one Data collection (1) environmental document in the past two (2) years for a Data review and analysis transportation project which was approved as a Categorical Exclusion (CE). Additional duties should Report preparation include: performs environmental-related work activities and NEPA document review provides high-level expertise and technical support for multi-discipline areas of complex environmental studies for clearance of transportation activities. Bachelor's degree in natural, physical or environmental sciences, history, architectural history, American studies or a related field and one (1) to three (3) years progressively responsible transportation experience or no degree and five (5) to seven (7) years of related transportation experience required. Graduate level education may be substituted for experience on a year per year basis. Field work Environmental Scientist II - The Environmental Scientist II shall have participated in the writing of a minimum of two Data collection (2) environmental documents in the past two (2) years for transportation projects which were approved as CEs. Data review and analysis Additional duties should include: performs environmental-Report preparation related work activities and provides high-level expertise and technical support for multi-discipline areas of complex **NEPA** document review environmental studies for clearance of transportation

activities. Bachelor's degree in natural, physical or environmental sciences, history, architectural history, American studies or a related field and three (3) to five (5) years progressively responsible transportation experience or no degree and seven (7) to nine (9) years of related transportation experience required. Graduate level education may be substituted for experience on a year per year basis.	
Technical Editor/Writer – Writes, edits, and formats	Writes, edits, and formats reports
reports. Reviews documents for quality control. Must have a minimum of one (1) year experience in preparation of environmental documentation.	Report review for grammar, punctuation, and spelling
character documentation.	QA/QC documents
CADD Technician - Typically requires a high school diploma. Requires two (2) to four (4) years of experience or two (2) years of related college and more than one (1) year of experience. Generally requires experience utilizing Microstation and AutoCADD.	Creates maps and other documents using AutoCADD software
GIS Technician - Typically requires a high school diploma. Requires two to four (2 to 4) years of experience or two (2) years of related college and more than one (1) year of experience. Proficient in using the ArcGIS Desktop suite of products and also proficient in cartographic skills and standards.	Creates maps using GIS Software
Clerical – General office work, typing, and filing.	General secretarial duties
·	General office work, typing, and filing
	Document/report generation and reproduction
	Operates computer for word processing, spreadsheets, and statistical typing, correspondence report generation, etc.

ATTACHMENT C

Not Applicable

ATTACHMENT D WORK AUTHORIZATIONS

D-1 WORK AUTHORIZATION NO. CONTRACT FOR SCIENTIFIC SERVICES

THIS WORK AUTHORIZATION is made u (Contract) between the State of Texas, acti and	ng through the Texas Department of Transportation (State),
The responsibili	m environmental services generally described as ties of the State and the Technical Expert as well as the work Responsibilities of the State and the Technical Expert), and
PART II. The maximum amount payable uthe method of payment is	ander this Work Authorization is \$ and as set forth in Attachment E of the Contract. This tachment E (Schedule of Rates) to the Contract and the
PART III. Payment to the Technical Experwith Exhibit C.	t under this Work Authorization shall be made in accordance
PART IV. This Work Authorization is effective or when the contract termina	tive when executed by both parties and terminates on tes, whichever occurs first.
PART V. This Work Authorization does no established by the Contract.	ot waive the parties' responsibilities and obligations as
PART VI. Exhibits A, B, and C are made pa	art of this Work Authorization.
THE TECHNICAL EXPERT	THE STATE OF TEXAS TEXAS DEPARTMENT OF TRANSPORTATION
(Business name)	
(Signature)	(Signature)
(Printed Name and Title)	(Printed Name and Title)
(Date)	(Date)
List of Exhibits: Exhibit A – Responsibilities of the State an Exhibit B – Work Schedule Exhibit C – Budget Exhibit H-2- Subprovider Monitoring Syste	

D-2 SUPPLEMENTAL WORK AUTHORIZATION NO. ____ TO WORK AUTHORIZATION NO. ___ CONTRACT FOR SCIENTIFIC SERVICES

CONTRACT	FOR SCIENTIFIC SERVICES
THIS SUPPLEMENTAL is made under S (Contract) between the State of Texas, ac (State), and	cting through the Texas Department of Transportation
The following terms and conditions of Wo	ork Authorization No are hereby amended as follows:
[EXPLAIN HERE OR ATTACH EXHIBIT	AND INCORPORATE HEREIN BY REFERENCE?]
This supplemental is effective when execution No remain in full force	cuted by both parties. All other terms and conditions of Worle and effect.
THE TECHNICAL EXPERT	THE STATE OF TEXAS TEXAS DEPARTMENT OF TRANSPORTATION
(Business name)	
(Signature)	(Signature)
(Printed Name and Title)	(Printed Name and Title)
(Date)	(Date)

ATTACHMENT E

SCHEDULE OF RATES

This attachment provides the basis of payment, which is indicated by an "X" in the applicable space on one or more of the following pages.

The basis of payment shall be accompanied by a Final Cost Proposal (FCP), which is included in this Attachment.

If more than one basis of payment is used, each one must be supported by a separate FCP.

LUMP SUM

Definition

A lump sum is a single dollar figure paid for one or more deliverables. There may be multiple lump sums if each is associated with a distinct deliverable or group of deliverables.

Components

A lump sum includes labor rates, overhead, fee, and direct costs. Therefore, no additional payment will be made for labor rates, overhead, fee, or direct costs.

Required Documentation

Each invoice shall itemize charges by listing the deliverable or deliverables associated with the lump sum for which payment is requested. The Technical Expert is not required to submit evidence of actual labor rates, hours worked, travel, overhead rates, or any other cost.

Audit Adjustment

Lump sums are not subject to change as the result of an audit.

Basis of Payment

Payment may be made at the time of completion for one or more interim or final deliverables. Pro rata payments may be made based on the percentage of work on a deliverable that has been completed.

Final Cost Proposal

The contract FCP must contain rates that are established at the time of the contract. One or more of the following methods must be used. First, the contract FCP may identify specified rates and direct costs that will be used later to build lump sums. Second, the contract FCP may identify unit costs and direct costs that will be used later to build lump sums. Third, the contract FCP may identify future work authorizations and corresponding lump sums.

Work Authorizations

A work authorization may have more than one lump sum if each is associated with a distinct deliverable or group of deliverables. If lump sum work authorizations will be used, the contract FCP must contain detailed and negotiated unit costs or specified rates so that the lump sum for future work authorizations can be calculated with certainty on the basis of cost figures contained in the contract FCP, or it must contain a schedule of future work authorizations with their associated lump sums. Lump sum work authorizations may not be calculated on the basis of actual labor rates, overhead rates, fee, or direct costs because actual costs are not audited or adjusted under a lump sum contract. The basis for lump sums may not be left for negotiation at the time work authorizations are issued.

UNIT COST

Definition

A unit cost is a dollar figure paid for a unit of production. A different dollar figure may be associated with each unit of production.

Components

The unit cost includes labor rates, overhead, and fee, Therefore, no additional payment will be made for labor rates, overhead, or fee.

Required Documentation

Each invoice shall itemize charges by unit of production and unit cost and any direct costs. The Technical Expert may be required to provide additional evidence of units of production and direct costs. The Technical Expert is not required to provide evidence of actual labor rates, hours worked, overhead rates, or any other cost, except direct costs.

Audit Adjustment

Unit costs are not subject to change as the result of an audit. Direct costs are subject to change as the result of an audit.

Basis of Payment

Payment may be made at the time of completion for one or more units of production. Pro rata payments may not be made based on the percentage of work on a unit of production that has been completed.

Final Cost Proposal

The contract FCP must contain a schedule of all unit costs with their associated units of production and any direct costs. It must also clearly identify the circumstance that will cause a payment to become due.

Work Authorizations

Different units of production may be included in a work authorization in any combination. If unit cost work authorizations will be used, the contract FCP must contain unit costs for each unit of production that will be included in any work authorization as well as any direct costs. Unit costs may not be left for negotiation at the time work authorizations are issued.

SPECIFIED RATE

X

Definition

A specified rate is an overall hourly rate that includes almost all cost elements. A different specified rate may be associated with each type of labor.

Components

The specified rate includes labor rates, overhead, and fee. Therefore, no additional payment will be made for labor rates, overhead, or fee.

Required Documentation

Each invoice shall itemize charges by name of worker, type of labor and specified rate, shall list any direct costs, and shall include copies of time sheets supporting the requested payment. The Technical Expert may be required to provide additional evidence of hours worked and direct costs. The Technical Expert is not required to provide evidence of actual labor costs, overhead rates, or any other cost, except direct costs.

Audit Adjustment

Specified rates are not subject to change as the result of an audit. Direct costs are subject to change as the result of an audit.

Basis of Payment

Payment may be made at the time of completion for one or more interim or final deliverables or on a periodic basis that is clearly identified. Pro rata payments may not otherwise be made.

Final Cost Proposal

The contract FCP must contain a schedule of all specified rates with their associated types of labor and any direct costs. It must also clearly identify the circumstance that will cause a payment to become due.

Work Authorizations

Different types of labor may be included in a work authorization in any combination. If specified rate work authorizations will be used, the contract FCP must contain specified rates for each type of labor that will be included in any work authorization as well as any direct costs. Specified rates may not be left for negotiation at the time work authorizations are issued.

FINAL COST PROPOSAL (FCP)

MAXIMUM AMOUNT PAYABLE \$900,000.00.

The maximum amount payable shall not be amended to exceed \$2,000,000 for a contract issued to provide services in a single district of the department. The maximum amount payable shall not be amended to exceed \$5,000,000 in a contract issued to provide services in two or more districts of the department.

The basis for calculating charges for services on this project will be as follows:

<u>Maximum Amount Payable</u> – Total work authorizations shall not exceed the maximum amount payable in the contract. Cost within the work authorization shall not exceed the maximum amount payable in the work authorization.

<u>Specified Rates</u> - The specified rate in this contract includes labor rates, overhead, and fee. Labor rates are set rates throughout the life of the contract. Direct costs are subject to change as the result of an audit.

<u>Subprovider Rates</u> - Rates for subproviders providing services listed in the Technical Expert's proposal shall not exceed the rates listed in the Technical Expert's proposal and shall be reimbursed at the subproviders' actual price to the Technical Expert.

Travel, Lodging, and Meals

Lodging (overnight stay, not to exceed State rates, not including taxes)

Per diem rates (Actual cost not to exceed State rates with an overnight stay. Gratuities and

alcoholic beverages will not to be included.)

Vehicle mileage (not to exceed State reimbursement rate)

Airfare (at cost, standard coach rate)

Rental car (at cost, not to exceed \$50 per day base rate not including taxes and fees)

<u>Out of State Technical Expert</u> - If you are an out of state technical expert, you must maintain an office in Texas to serve as a point of origin for operations. If the technical expert provides staff from out of state, all travel cost incurred to Texas will be paid by the Technical Expert. Out of State travel will only be paid for by the State if travel is required in the work authorization. The Out of State travel must be written into the work authorization and must have prior approval from the Environmental Affairs Division Director.

STAFF POSITIONS	RATE	
Project Manager	\$ 164.00	per hour
Field Biologist	\$ 108.00	per hour
Wetland Delineator	\$ 78.00	per hour
Professional Archeologist	\$ 118.58	per hour
Professional Historian	\$ 115.89	per hour
Community Impact Analysis Expert	\$ 93.00	per hour
Air Quality Expert	\$ 82.00	per hour
Traffic Noise Expert	\$ 108.00	per hour
Public Involvement Expert	\$ 58.00	per hour
Geoscientist	\$ 58.00	per hour
Hydrologist	\$ 58.00	per hour
Permit Preparer (Nationwide/Individual Section 404, Section 9, Section 10)	\$ 78.00	per hour
Hazardous Materials Expert	\$ 60.00	per hour
Archeological Crew Chief or Lab Supervisor	\$ 65.49	per hour
Archeological Technician	\$ 54.44	per hour
Archival Researcher	\$ 79.23	per hour
Environmental Scientist I	\$ 85.00	per hour
Environmental Scientist II	\$ 118.00	per hour
Technical Writer/Technical Editor	\$ 67.19	per hour
CADD Technician/GIS Technician	\$ 61.31	per hour
Clerical	\$ 49.32	per hour

Miscellaneous/Direct Costs (a cost must be listed for each line)	Rate	Unit
8.5" X 11" B&W Photocopy, plain paper	\$ 0.10	Сору
8.5" X 14" B&W Photocopy, plain paper	\$ 0.10	Сору
11" X 17" B&W Photocopy, plain paper	\$ 0.10	Сору
8.5" X 11" Color Photocopy, plain paper	\$ 1.00	Сору
8.5" X 14" Color Photocopy, plain paper	\$ 1.00	Сору
11" X 17" Color Photocopy, plain paper	\$ 1.00	Сору
8.5" X 11" B&W Photocopy, archival stable paper	\$ 0.10	Сору
8.5" X 14" B&W Photocopy, archival stable paper	\$ 0.10	Сору
11" X 17" B&W Photocopy, archival stable paper	\$ 0.10	Сору
8.5" X 11" Color Photocopy, archival stable paper	\$ 1.00	Сору
8.5" X 14" Color Photocopy, archival stable paper	\$ 1.00	Сору
11" X 17" Color Photocopy, archival stable paper	\$ 1.00	Сору

NOTE: Maximum amount payable and all other costs will be negotiated during work authorization development. TxDOT reserves the right to reject individual work order costs that exceed market averages and/or Federal Regulation Cost Principles.

ATTACHMENT F

Not Applicable

ATTACHMENT G Not Applicable

ATTACHMENT H-SG

Historically Underutilized Business for State Funded Professional or Technical Services Contracts HUB Goal Assigned-State of Texas Subcontracting Plan Required

- 1) POLICY. It is the policy of the Department to ensure that HUBs shall have an equal opportunity to participate in the performance of contracts; to create a level playing field on which HUBs can compete fairly for contracts and subcontracts; to ensure nondiscrimination on the basis of race, color, national origin, or gender in the award and administration of contracts; to help remove barriers to the participation of HUBs in department contracts; and, to assist in the development of firms that can compete successfully in the market place outside the HUB program. Consequently, the HUB requirements of the Department's HUB Program apply to this contract as follows:
 - (1) The Provider agrees to insure that they shall take all necessary and reasonable steps to meet the HUB goal for this contract.
 - a. The Provider and any subprovider(s) shall not discriminate on the basis of race, color, national origin, or sex in the award and performance of contracts.
 - b. When submitting the contract for execution by the Department, the Provider must complete and furnish Exhibit H-1 which lists the commitments made to all subproviders, including certified HUB subprovider(s) that are to meet the contract goal, and Exhibit H-2 which is a commitment agreement(s) containing the original signatures of the Provider and HUB(s) that were indicated in the original submitted State of Texas HUB Subcontracting Plan (HSP) in Section 8. For Work Authorization Contracts, Exhibit H-1 is required at the time of submitting the contract for execution by the Department. Exhibit H-2 will be required to be completed and attach with each work authorization number that is submitted for execution, if the HUB will be performing work. If non-HUB subprovider is performing work, insert N/A (not applicable) on the line provided. A prime must allow a HUB maximum opportunity to perform the work by not creating unnecessary barriers or artificial requirements for the purpose of hindering a HUB's performance under the contract. Any substitutions or changes to the HSP, in addition to any changes to the original contract award, shall be subject to prior written approval by the Department. If there are any changes to the subproviders during the contract term, the Provider must furnish a Revised Exhibit H-1 showing the revised commitment of all subproviders.
 - c. Failure to carry out the requirements set forth above shall constitute a breach of contract and may result in a letter of reprimand; in termination of the contract by the Department; in a deduction from money due or to become due to the Provider, not as a penalty but as damages to the Department's HUB Program; or such other remedy or remedies as the Department deems appropriate.

2) **DEFINITIONS**.

- a. "Department" means the Texas Department of Transportation (TxDOT).
- b. "Contract" is the agreement between the Texas Department of Transportation and a Provider.
- c. "Provider" is any individual or company that provides professional or technical services.
- d. "Joint Venture" means an association of two or more businesses to carry out a single business enterprise for profit which combines their property, capital, efforts, skills and knowledge.
- e. "Historically Underutilized Business (HUB)" means any business so certified by the Texas Building and Procurement Commission.
- 3) <u>PERCENTAGE GOAL</u>. The goal for Historically Underutilized Business (HUB) participation in the work to be performed under this contract is _______% of the contract amount.
- 4) **PROVIDER'S RESPONSIBILITIES.** A Provider (HUB or non-HUB) must perform a minimum of 30% of the contract with its employees (as defined by the Internal Revenue Service). The contract is subject to the HSP Good Faith Effort Requirements.
 - a. A Provider who cannot meet the contract goal, in whole or in part, should have documented any of the following and other efforts made as a "Good Faith Effort" to obtain HUB participation.
 - (1) Whether the prime advertised in general circulation, trade association, and/or minority/women focus media concerning subcontracting opportunities.

- (2) Whether the prime provided written notice to at least three (3) qualified HUBs allowing sufficient time for HUBs to participate effectively.
- (3) Whether the prime documented reasons for rejection or met with the rejected HUB to discuss the rejection.
- (4) Whether the prime provided qualified HUBs with adequate information about bonding, insurance, the plans, the specifications, scope of work and requirements of the contract.
- (5) Whether the prime negotiated in good faith with qualified HUBs, not rejecting qualified HUBs who are also the lowest responsive bidder.
- (6) Whether the prime used the services of available minority and women community organizations, contractor's groups, local, state, and federal business assistance offices, and other organizations that provide support services to HUBs.

NOTE: The Provider must not cause or allow subproviders to bid their services.

- b. The preceding information shall be submitted directly to the Chair of the Consultant Selection Team responsible for the contract.
- c. The Provider shall make all reasonable efforts to honor commitments to HUB subproviders named in the original HSP in Section 8. Where the Provider terminates or removes a HUB subprovider named in the initial commitment, the Provider must demonstrate on a case-by-case basis to the satisfaction of the Department that the originally designated HUB was not able or willing to perform. The term "unable" includes, but is not limited to, a firm that does not have the resources and expertise to finish the work and/or a firm that substantially increases the time to complete the project.
- d. The Provider shall make all reasonable efforts to replace a HUB subprovider that is unable or unwilling to perform successfully with another HUB and must meet the HSP Good Faith Effort Requirements. Any substitution of HUBs shall be subject to prior written approval by the Department. The Department will request a statement from the firm being replaced concerning its replacement prior to approving the substitution. If there are any changes to the subproviders during the contract term, the Provider must furnish a Revised Exhibit H-1 showing the revised commitment of all subproviders.
- e. The Provider shall designate a HUB liaison officer who will administer the Provider's HUB program and who will be responsible for maintenance of records of efforts and contacts made to subcontract with HUBs.

5) ELIGIBILITY OF HUBs.

- a. The Texas Building and Procurement Commission (TBPC) certifies the eligibility of HUBs.
- b. The TBPC maintains a directory of certified HUBs. The HUB Directory is available through the Department's Business Opportunity Programs Office and through the Internet at the TBPC's Website (http://www2.tbpc.state.tx.us/cmbl/hubonly.html).
- c. Only HUB firms certified and identified in specific categories and classes at the time the contract is signed or at the time the commitments are submitted are eligible to be used in the information furnished by the Provider as required under Section 2.c. above.
- d. If during the course of the contract it becomes necessary to substitute another HUB firm for a firm named in the information submitted by the Provider as required by Section 2.c. above, then only certified HUBs will be considered eligible as a substituted firm. The Provider's written request for substitutions of HUB subproviders shall be accompanied by a detailed explanation, which should substantiate the need for a substitution. The Department will verify the explanation with the HUB firm being replaced before giving approval of the substitution. If there are any changes to the subproviders during the contract term, the Provider must furnish a Revised Exhibit H-1 showing the revised commitment of all subproviders.
- e. The 73rd Legislature passed Texas Civil Statutes, Article 601i, relative to contracts between governmental entities and certain disadvantaged businesses. The Statute provides for civil penalties for persons who falsely claim disadvantaged business status and for the general contractor who knowingly contracts with a person claiming to be a disadvantaged business.

6) DETERMINATION OF HUB PARTICIPATION.

A firm must be an eligible HUB and perform a professional or technical function relating to the project. Proof of payment, such as copies of canceled checks, properly identifying the Department's contract number or project number may be required to substantiate the payment, as deemed necessary by the Department. A HUB subprovider, with prior written approval from the Department, may subcontract 70% of a contract as long as the

HUB subprovider performs a commercially useful function. All subcontracts shall include the provisions required in the subcontract and shall be approved as to form, in writing, by the Department prior to work being performed under the subcontract. A HUB performs a commercially useful function when it is responsible for a distinct element of the work of a contract; and actually manages, supervises, and controls the materials, equipment, employees, and all other business obligations attendant to the satisfactory completion of contracted work. If the subcontractor uses an employee leasing firm for the purpose of providing salary and benefit administration, the employees must in all other respects be supervised and perform on the job as if they were employees of the subcontractor.

7) COMPLIANCE OF PROVIDER.

8) To ensure that HUB requirements of this contract are complied with, the Department will monitor the Provider's efforts to involve HUBs during the performance of this contract. This will be accomplished by a review of the monthly State of Texas HUB Subcontracting Plan Prime Contractor Progress Assessment Report (Exhibit H-6) submitted to the Business Opportunity Programs Office by the Provider indicating his/her progress in achieving the HUB contract goal, and by compliance reviews conducted by the Department. The State of Texas HUB Subcontracting Plan Prime Contractor Progress Assessment Report (Exhibit H-6) must be submitted at a minimum monthly to the Business Opportunity Programs Office, in addition to with each invoice to the appropriate agency contact.

The Provider shall receive credit toward the HUB goal based on actual payments to the HUB subproviders with the following exceptions and only if the arrangement is consistent with standard industry practice.

- (1) Payments to brokers or firms with a brokering type operation will be credited only for the amount of the commission:
- (2) Payments to a joint venture will not be credited unless all partners in the joint venture are HUBs;
- (3) Payments to a HUB subprovider who has subcontracted a portion of the work required under the subcontract will not be credited unless the HUB performs a commercially useful function;
- (4) Payments to a HUB will not be credited if the firm does not provide the goods or perform the services paid for;
- (5) Payments made to a HUB that cannot be linked by an invoice or canceled check to the contract under which credit is claimed will not be credited.

A Provider must not withhold or reduce payments to any HUB without a reason that is accepted as standard industry practice. A HUB prime or subprovider must comply with the terms of the contract or subcontract. Work products, services, and commodities must meet contract specifications whether performed by a prime or subprovider.

A Provider's failure to meet the HUB goal and failure to demonstrate to the Department's satisfaction sufficient "Good Faith Effort" on his/her part to obtain HUB participation shall constitute a breach of contract. In such a case, the Department reserves the right to issue a letter of reprimand; to deduct the amount of HUB goal not accomplished by HUBs from the money due or to become due the Provider, not as a penalty but as damages to the Department's HUB program; or such other remedy or remedies as the Department deems appropriate.

9) RECORDS AND REPORTS.

a. After submission of the initial commitment (Exhibit H-1), required by Section 2.c. of this attachment, the Provider shall submit State of Texas HUB Subcontracting Plan Prime Contractor Progress Assessment Report (Exhibit H-6) at a minimum monthly, after contract work begins, on subcontracting involvement. One copy of the State of Texas HUB Subcontracting Plan Prime Contractor Progress Assessment Report (Exhibit H-6) is to be sent to the Business Opportunity Programs Office of the Department monthly. In addition, the State of Texas HUB Subcontracting Plan Prime Contractor Progress Assessment Report (Exhibit H-6) must be submitted with the Provider's invoice. All payments made to subproviders are to be reported. These State of Texas HUB Subcontracting Plan Prime Contractor Progress Assessment Reports are required monthly even during months when no payments to subproviders have been made. The State of Texas HUB Subcontracting Plan Prime Contractor Progress Assessment Report will be

- required until all work on the contract has been completed. The Department may verify the amounts being reported as paid to HUBs by requesting copies of canceled checks paid to HUBs on a random basis.
- b. Subproviders should be identified on the State of Texas HUB Subcontracting Plan Prime Contractor Progress Assessment Report (Exhibit H-6) by name, the amount of actual payment made to each during the billing period, cumulative payment amount and percentage of the total contract amount.
- c. All such records must be retained for a period of seven years following final payment, or until an investigation, audit, examination, or other review undertaken during the seven years, and shall be available at reasonable times and places for inspection by authorized representatives of the Department and other agencies.
- d. Prior to receiving final payment, the Provider shall submit a Final Report (Exhibit H-4), detailing the subprovider payments to the Business Opportunity Programs Office of the Department, and one copy to the Department with the Provider's final invoice.

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EXHIBIT H-1

Texas Department of Transportation Subprovider Monitoring System Commitment Worksheet

Contract #:	Assigned Goal: 26%	Federally Fund	ded	State Funded X
Prime Provider: Ecosystem	Planning and Restorati	on, LLC	Total Contract Ar	nount: <u>\$900,000.00</u>
Prime Provider Info: DBE	HUB Both			
Vendor ID #: 14612908265		DBE/	HUB Expiration D	eate:
(First 11 Digit		a bu placina "N/A	" on the 1 st line under	Submunidans

Subprovider(s) (List All)	Type of Work	Vendor ID # (First 11 Digits Only)	D=DBE H=HUB	Expiration Date	\$ Amount or % of Work *
AmaTerra Environmental, Inc.	Professional Archeologist, Professional Historian, and Field Biologist	14539677063	Н	05/31/16	22%
CP&Y, Inc.	Community Impact Analysis	17517204149	Н	01/11/17	4%
				-	
Subprovider(s) Contract or % of Work* Totals					26%

^{*}For Work Authorization Contracts, indicate the % of work to be performed by each subprovider.

Total DBE or HUB Commitment Dollars \$234,000.00

Total DBE or HUB Commitment Percentages of Contract 26% (Commitment Dollars and Percentages are for Subproviders only)

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EXHIBIT H-2

Texas Department of Transportation Subprovider Monitoring System Commitment Agreement

This commitment agreement is subject to the award and (TxDOT). NOTE: Exhibit H-2 is required to be attached required to be attached with each work authorization. authorization. If <u>DBE/HUB Subproviders</u> are used, the used, indicate with "N/A" on this line: and at	to each contract that d Exhibit H-2 is also re form must be complete	oes not include work equired to be attach ted and signed. If n	authorizations. Exhibit H-2 is ed to each supplemental work o DBE/HUB Subproviders are
Contract #: Assigned Goal: 26%	Prime Provider: Ecosy	ystem Planning and Ro	estoration, LLC
Work Authorization (WA)#: WA Amount: _		Date:	
Supplemental Work Authorization (SWA) #: to WA	#: SW	'A Amount:	
Revised WA Amount:			
Description of Work (List by category of work or task description. Attach necessary.)	additional pages, if	- I	Oollar Amount ory of work or task description shown.)
Total Commitment Amount (Including all ada	litional pages.)	\$	
IMPORTANT: The signatures of the prime and the DBE the total commitment amount must always be on the same	nage	Subprovider, if any ()	
Provider Name:	Name:		
Address:		(Please P	rint)
Phone # & Fax #:	Title:		
Email:			
		Signature	Date
DBE/HUB Sub Provider	Name:		
Subprovider Name:		(Please P	rint)
VID Number:	Title:		
Address:			
Phone # & Fax #:		Signature	Date
Email:			
Second Tier Sub Provider	Name:		
Subprovider Name:		(Please P	rint)
VID Number:	Title:		<u>. </u>
Address:			
Phone #& Fax #:		Signature	Date
Email:			
VID Number is the Vendor Identification Number issued by	the Comptroller. If a fir	m does not have a VID	Number, please enter the

owner's Social Security or their Federal Employee Identification Number (if incorporated).

EXHIBIT H-4

Texas Department of Transportation Subprovider Monitoring System Final Report

The Final Report Form should be filled out by the Prime Provider and submitted to the Contract Manager and the Business Opportunity Programs Office for review upon completion of the contract. The report should reflect all subcontract activity on the project. The report will aid in expediting the final estimate for payment. If the HUB or DBE goal requirements were not met, documentation supporting good faith efforts must be submitted.

ΛD

DBE Goal:%	OR	HUB Goal: <u>26</u> %
Total Contract Amount: \$	Total Contra	act Amount: \$ \$900,000.00
Contract Number:		
Vendor ID#	Subprovider	Total \$ Amt Paid to Date
,		
	то	OTAL OTAL
s is to certify that % of the w		JB or DBE subproviders as stated abo
		By: Prime Provider
		Per: Signature
Subscribed and swom to before me	e, this day of	, 20
Notary Du	blic Count	

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HUB Subcontracting Plan (HSP) Prime Contractor Progress Assessment Report

This form must be completed and submitted to the contracting agency each month to document compliance with your HSP.						
Contract/Regulation Number:			Date of Award		Object Code:	
		•		(mm/dd/yyyy)	,	(Agency Use Only)
Contracting Agency/University Name:						
				•	-	
Contractor (Company) Name:				State of Texas VID #:		
Point of Contact:				. Phone #:		
		T-4-1 6		B		
Reporting (Month) Period:		. I DIZII AMI	ount Paio una Reporti	ng Penou to Contractor.	•	-
Report HU	IB <u>and</u> Non	-HUB	subcont	ractor info	rmation	
		Texas			-	
	Subcontractor's VID or HUB	Certified . HUB?	Total Contract \$ Amount from HSP	Total \$ Amount Paid This Reporting Period to	Total Contract \$	Object Code
Subcontractor's Name	Certificate Number	(Yes or No)	with Subcontractor	Subcontractor	to Subcontractor	Object Code (Agency Use Only)
			s -	5 -	s .	
			\$	\$	\$.	
			\$	\$	\$	
			S .	\$ -	S -	
			\$ -	S -	\$ ·	
			s -	s -	s -	
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			<u> - </u>	<u>.</u>	\$ ·	
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			s	s .	\$ -	
			\$	\$.	\$ -	
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			S -	S -	s -	
			S -	s -	\$ -	
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			s .	S -	s -	
			S .		\$ ·	
			s ·		\$ ·	
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-			\$	\$	s ·	
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	TOTALS:		s .	\$	\$.	
01		-			Data:	

*Note: Prime contractors can verify subcontractor HUB certification status on-line at http://www2.tbpc.state.tx.us/cmbi/cmbi/hub.html

HSP PAR Rev 9/0